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ABSTRACT

This learning module on developing local plans for vocational education (Part II) is one of six competency-based modules designed for both preservice and inservice education of vocational education administrators. It focuses on the last five steps of the comprehensive "Vocational Education Program Planning Model" presented in Part I (CE 016 511). Provided are five self-paced learning activities, including performance objectives, information sheets, and student self-checks with model answers provided. The fifth learning activity (performed in an actual setting) is to be assessed by a qualified resource person. A performance assessment form for this final activity is provided. Also contained in this module is a list of resources (materials, people) needed for the activities and a list of defined terms used in the modules. This module is basically self-contained, but it is recommended that a qualified resource person guide, assist, and evaluate the learner's progress. (A final report of the project that developed these modules is available in two documents--CE 016 505-506. A guide on use of the modules is available as CE 016 507.) (JH)

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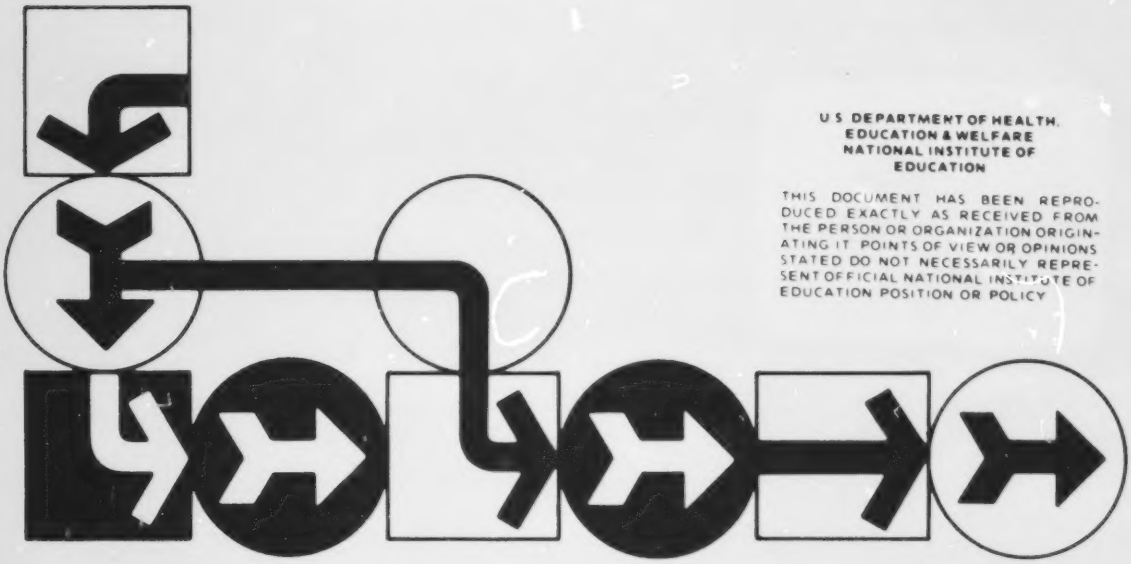
Leadership and Training Series No. 58B-6

DEVELOP LOCAL PLANS FOR

VOCATIONAL EDUCATION: PART II



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Competency-Based Vocational Education Administrator Module

CE 016 511

THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University · 1960 Kenny Road · Columbus, Ohio 43210

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The Center for Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

Leadership and Training Series No. 58B-6

DEVELOP LOCAL PLANS FOR VOCATIONAL EDUCATION: PART II

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FOREWORD

The need for strong and competent administrators of vocational education has long been recognized. The rapid expansion of vocational education programs and increased student enrollments have resulted in a need for increasing numbers of trained vocational administrators at both the secondary and post-secondary level. Preservice and inservice administrators need to be well prepared for the complex and unique skills required to successfully direct vocational programs.

The effective training of local administrators has been hampered by the limited knowledge of the competencies needed by local administrators and by the limited availability of competency-based materials for the preparation of vocational administrators. In response to this pressing need, the Occupational and Adult Education Branch of the U.S. Office of Education, under provisions of Part C--Research of the Vocational Education Amendments of 1968, funded The Center for a scope of work entitled "Development of Competency-Based Instructional Materials for Local Administrators of Vocational Education."

The project had two major objectives as follows:

- To conduct research to identify and nationally verify the competencies considered important to local administrators of vocational education.

- To develop and field test a series of prototypic competency-based instructional packages and a user's guide.

The identification of competencies was based upon input from a select group of experienced vocational administrators participating in a DACUM (Developing A Curriculum) workshop and the results of an extensive and comprehensive literature search and review. The merger of the DACUM and literature review task statements resulted in a list of 191 task statements that described all known functions and responsibilities of secondary and post-secondary vocational administrators. These task statements were submitted by questionnaire to a select national group of 130 experienced secondary and post-secondary administrators of vocational education for verification. Ninety-two percent (92%) of these administrators responded to the verification questionnaire and indicated that 166 of the 191 statements were competencies important (median score of 3.0 or higher) to the job of vocational administrator. For additional information about the procedures used to establish the research base upon which this and other modules in the series were developed, see The Identification and National Verification of Competencies Important to Secondary and Post-secondary Administrators of Vocational Education, available from The Center for Vocational Education.

High priority competencies were identifed and six prototypic modules and a user's guide were developed, field tested, and revised. The materials are organized in modular form for use by both preservice and inservice vocational administrators. Each module includes performance objectives, information sheets, learning activities, and feedback devices to help the module user

(learner) acquire the specified competency. While the modules are basically self-contained, requiring few outside resources, they are not entirely self-instructional. A qualified resource person (instructor) is required to guide, assist, and evaluate the learner's progress.

The titles of the modules, which reflect the competencies covered are:

- Organize and Work with a Local Vocational Education Advisory Council
- Supervise Vocational Education Personnel
- Appraise the Personnel Development Needs of Vocational Teachers
- Establish a Student Placement Service and Coordinate Follow-up Studies
- Develop Local Plans for Vocational Education: Part I
- Develop Local Plans for Vocational Education: Part II

For more information on the development and field testing procedures used, see The Development of Competency-Based Instructional Materials for the Preparation of Local Administrators of Secondary and Post-Secondary Vocational Education. For more information about the nature and use of the modules, see the Guide to Using Competency-Based Vocational Education Administrator Materials. Both of these documents are available from The Center.

Several persons participated in the development of this second module on developing local plans for vocational education. Robert E. Norton, Project Director, assumed major responsibility for reviewing the literature and for writing the manuscript. Recognition also goes to Roger E. Hamlin of Michigan State University, who as a consultant, prepared drafts of two information sheets; and to Gonzalo Garcia, Graduate Research Associate, for his search and review of the literature and assistance with portions of the module. Credit also goes to Kristy L. Ross, Program Assistant, for her editing and formatting of the manuscript; and to James B. Hamilton, Professional Development in Vocational Education Program Director, for his guidance and administrative assistance.

Finally appreciation is also extended to Russ Gardner, Kent State University; Aaron J. Miller, Ohio State University; Don McNelly, University of Tennessee; and Charles Parker, Utah State University; who served as field site coordinators for the field testing; and to the local administrators of vocational education who used the modules and provided valuable feedback and suggestions for their improvement.

Robert E. Taylor
Executive Director
The Center for Vocational Education

INTRODUCTION

Local administrators of vocational education, whether giving leadership to program development and operation at the secondary or post-secondary level, must develop and submit for state department approval annual local plans for vocational education. These plans must be carefully designed to meet the vocational training needs of the students and community served by the institution. Without careful, systematic, and comprehensive planning, the real needs of the community and its students are unlikely to be known or met by the programs offered.

In the beginning phase of the vocational planning process, the real needs must be identified, and program goals and objectives must be established. Following completion of these steps, alternative program and support service options for achieving the goals and objectives need to be generated, and the best possible alternatives selected. Selected with the input of the local advisory council, staff planning committee, and appropriate administrators, these alternatives become the basis for the fuller development of actual implementation plans and strategies. Once the local application for federal and state funds is approved, these plans and strategies will serve as the basis for operationalizing the plans developed.

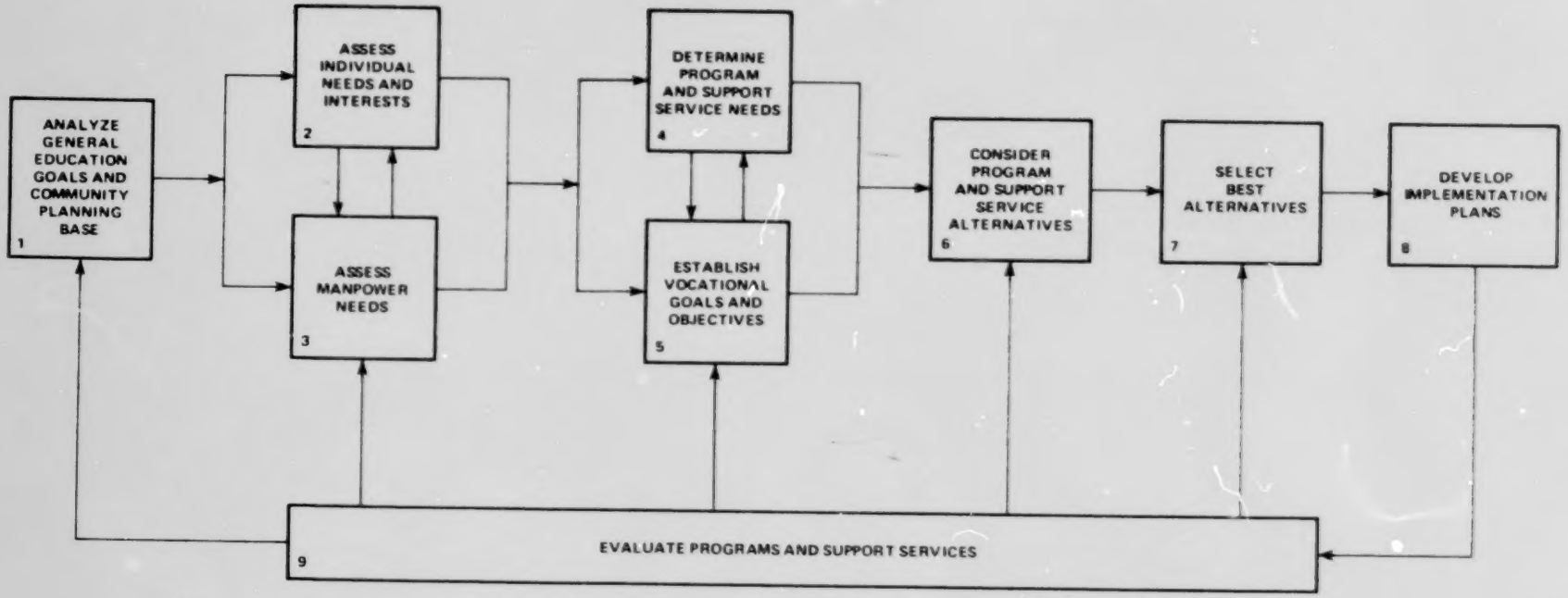
While, at first glance, the development and submission of implementation plans may appear to be the last in a series of complex and time-consuming planning steps, it is not. The very important step of planning for, and actually evaluating the various vocational programs and support services implemented, must also be carried out if the full vocational planning process cycle is to be completed. It is this important step in the planning process which helps provide the accountability demanded by the public and the Education Amendments of 1976, as well as the feedback necessary when assessing program effectiveness and determining the modifications needed to improve effectiveness in succeeding years.

This module is the second of two dealing with the development of local plans for vocational education. The first module, which should be considered a prerequisite to completing this one, deals with analyzing the community planning base, assessing individual needs and interests, assessing manpower needs, and based on those inputs using appropriate procedures for determining the vocational programs and support services needed.

This module deals with the last five steps of the Vocational Education Program Planning Model (see Figure 1) which was presented in the first module. Specifically, it is designed to give you leadership skills in establishing vocational goals and objectives, considering program and support service alternatives, selecting the best alternatives, developing implementation plans,

FIGURE 1

VOCATIONAL EDUCATION PROGRAM PLANNING MODEL



and evaluating the programs and support services proposed. While as a local administrator and/or program supervisor, you are not likely to be responsible for doing most of these tasks yourself, you are likely, whether working at the secondary or post-secondary level, to be responsible for giving leadership to some or all of these program planning activities. Your leadership role is likely to be vital to these activities being effectively carried out, and hence likely to impact directly on how well the vocational program and support services established serve the real needs of your students and community.

Module Structure and Use

This module contains an introduction and five sequential learning experiences. OVERVIEWS, which precede each learning experience, contain the objective for that experience and a brief description of what the learning experience involves.

Objectives

Terminal Objective: While working in an actual school administrative situation, complete the development of local plans for vocational education. Your performance will be assessed by your resource person, using the "Administrator Performance Assessment Form," pp. 95-97 *(Learning Experience V)*.

Enabling Objectives:

1. After completing the required reading, write sample program goals and objectives for a selected vocational program *(Learning Experience I)*.

2. After completing the required reading, demonstrate knowledge of the procedures involved in generating program and support service alternatives, and in selecting the best alternative solution *(Learning Experience II)*.

3. After completing the required reading, demonstrate knowledge of the important concepts and procedures to follow in developing implementation plans for vocational education *(Learning Experience III)*.

4. After completing the required reading, demonstrate knowledge of accepted procedures and techniques for evaluating vocational programs and support services *(Learning Experience IV)*.

Prerequisite

To complete this module, you must have competency in determining program and support service needs. If you do not already have this competency, meet with your resource person to determine what method you will use to gain this skill. One option is to complete the information and practice activities in the following module: Develop Local Plans for Vocational Education: Part I.

Resources

A list of the outside resources which supplement those contained within the modules follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references specific to your situation, and (3) to get assistance in setting up activities with peers or observations of skilled administrators.

Learning Experience I

Optional

- *Reference:* Mager, Robert F. Goal Analysis. Belmont, CA: Lear Siegler, Inc./Fearon Publishers, 1972.

- *Program goal and objective statements* from school or post-secondary vocational programs to review.

Learning Experience II

Optional

- *Reference:* Copa, George H., Erwin K. Geigle, and U. O. Imade. Factors, Priorities, and Information Needs in Planning Vocational Education. Minneapolis, MN: University of Minnesota, Department of Vocational and Technical Education, 1976.

- *Reference:* Copa, George H., Erwin K. Geigle, and Donald E. Irvin. Critical Issues in Planning Vocational Education. Minneapolis, MN: University of Minnesota, Department of Vocational and Technical Education, 1976.

- *1-5 peers* with whom you can meet to discuss the generation of program alternatives.

Learning Experience III

Required

- *Application forms* completed by local educational agencies applying for vocational funds to review.

Optional

- *1-5 peers* with whom you can meet to discuss the concepts and principles for developing local vocational education program plans.

Learning Experience IV

Optional

- *Reference:* Norton, Robert E. and Norval McCaslin. "Evaluation of Special Group Programs," Vocational Education for Special Groups. Edited by James E. Wall. Washington DC: The American Vocational Association, 1976.

- *Sample evaluation forms and/or actual reports of local program evaluations* to review.

Learning Experience V

Optional

- *An actual school administrative situation* in which you can complete the development of local plans for vocational education.

- *A resource person* to assess your competency in completing the development of local plans for vocational education.

Selected Terms

Administrator -- refers to a member of the secondary or post-secondary administrative team. This generic term, except where specifically designated otherwise, refers to the community college president, vice-president, dean, director; or to the secondary school principal, director, superintendent.

Board -- refers to the secondary or post-secondary educational governing body. Except where otherwise specified, the term "board" is used to refer to a board of education and/or a board of trustees.

Resource Person -- refers to the professional educator who is directly responsible for guiding and helping you plan and carry out your professional development program.

School -- refers to a secondary or post-secondary educational agency. Except where otherwise specified, this generic term is used to refer synonomously to secondary schools, secondary vocational schools, area vocational schools, community colleges, post-secondary vocational and technical schools, and trade schools.

User's Guide

For information which is common to all modules, such as procedures for module use, organization of modules, and definitions of terms, you should refer to the following supporting document.

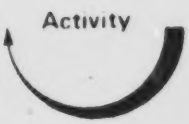
Guide to Using Competency-Based Vocational Education Administrator Materials. Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977.

This module addresses task statement numbers 6, 7, 8, 9, 10, 18, and 32 from Robert E. Norton, et al., The Identification and National Verification of Competencies Important to Secondary and Post-Secondary Administrators of Vocational Education. (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977). The 166 task statements in this document which were verified as important, form the research base for The Center's competency-based administrator module development.

Learning Experience I

OVERVIEW

After completing the required reading, write sample program goals and objectives for a selected vocational program.

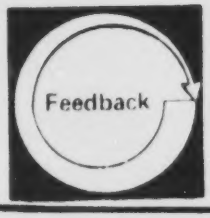


You will be reading the information sheet, "Establishing Vocational Program Goals and Objectives," pp. 9-19.

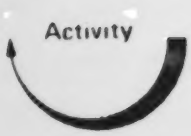
You may wish to read Mager, Goal Analysis.

You may wish to obtain and review statements of program goals and objectives from one or more local school or post-secondary vocational programs.

You will be developing sample vocational program goals and sample program objectives for those goals for an overall vocational program or an occupational program area.



You will be evaluating your competency in developing sample program goals and objectives, using the "Goals and Objectives Checklist," p. 21.



For information on the types of program goals and objectives, and procedures for their development and ranking, read the following information sheet.

ESTABLISHING VOCATIONAL PROGRAM GOALS AND OBJECTIVES

The development of vocational program goals and objectives is another important step in the comprehensive vocational education planning process. Once the types of vocational programs and support services needed have been identified and prioritized, the planner is ready to give leadership to the development of appropriate goals and objectives which will reflect the school or college's priority needs. The development of appropriate program goals and objectives requires careful planning and the appropriate involvement of concerned others. Well developed program goals and objectives will reflect real needs and will serve to indicate "where you want to go" and "how you plan to get there."

The major factors to consider in Step 5, "Establishing Vocational Program Goals and Objectives" of the vocational education planning process include:

- consider the various types of goals and objectives and their relationship to one another
- develop basic program goals and objectives
- develop support service goals and objectives
- decide on long-term versus short-term goals and objectives

Once established and agreed upon, the program objectives become the basis against which program outcomes are compared. A good job of writing clear and measurable program objectives will facilitate the program evaluation process which must follow.

While all states require that local plans include some type of program goals and objectives, there appears to be little uniformity as to the type of goal and objective statements desired. It is strongly recommended that the local planner obtain copies of any instructions and/or sample statements available from the state educational agency which would help planners accomplish this task. The discussion which follows will point out and illustrate the kinds of program goals and objectives which have been commonly written in the planning process.

Types of Goals and Objectives

One of the most confusing things about establishing program goals and objectives is the many levels at which the two terms are used. Adding to this complexity are the many types of goals and objectives that are written for various purposes.

First, let us consider generally accepted definitions of goals and objectives. Goals may be defined as "broad statements of intent which are not quantifiable." A goal is general, timeless, and reflects a problem or need that should be met or resolved. Goals indicate the "where we want to go" or the conditions to be achieved if we are to be successful. The following are sample goals meeting this definition.

- Provide all students a general education.
- Provide all students with gainful employment skills.
- Provide all students with an awareness of employment and educational opportunities.
- Give all students practice in decision-making.

Objectives may be defined as "specific statements of intent which are quantifiable." An objective indicates a desired accomplishment which can be measured within a given time period, and which, if achieved, will contribute toward reaching a program goal. Objectives propose specific, concrete actions that will be taken to resolve the need or problem of concern. The major difference between goals and objectives is that objectives are usually measurable, and always should be, especially if they are to be used later as a basis for program evaluation. The following are some sample objectives meeting this definition.

- To increase by 10% in the next academic year the number of training stations available in local businesses for cooperative education students.
- To provide vocational orientation students with an opportunity to obtain hands-on exploratory work experiences in at least three occupational clusters.
- To provide placement services for all vocational students exiting the formal school program.
- To organize and maintain active and functional advisory committees for all occupational program areas.

Another way of distinguishing between goals and objectives is that objectives always indicate, or at least imply, the means or processes that will be used to achieve goals. The goals indicate the "target" or general intent being sought without any reference to "how you plan to get there."

Planners in developing program objectives must be careful to avoid confusing them with what may be called instructional objectives. Program objectives are more general and focus on what the school, its administrators, teachers, and counselors must do to achieve the goals set forth. Instructional objectives on the other hand, are student-oriented, more specific, and are descriptive of what students will be expected to learn in classroom and laboratory settings. Instructional objectives include what are commonly called student performance objectives or behavioral objectives, and are skill and subject-matter oriented. Instructional objectives are commonly found in daily lesson plans, units of instruction, and courses of study. They are important but are usually the teacher's responsibility more than the responsibility of the administrator or program planners.

Levels of Program Goals and Objectives

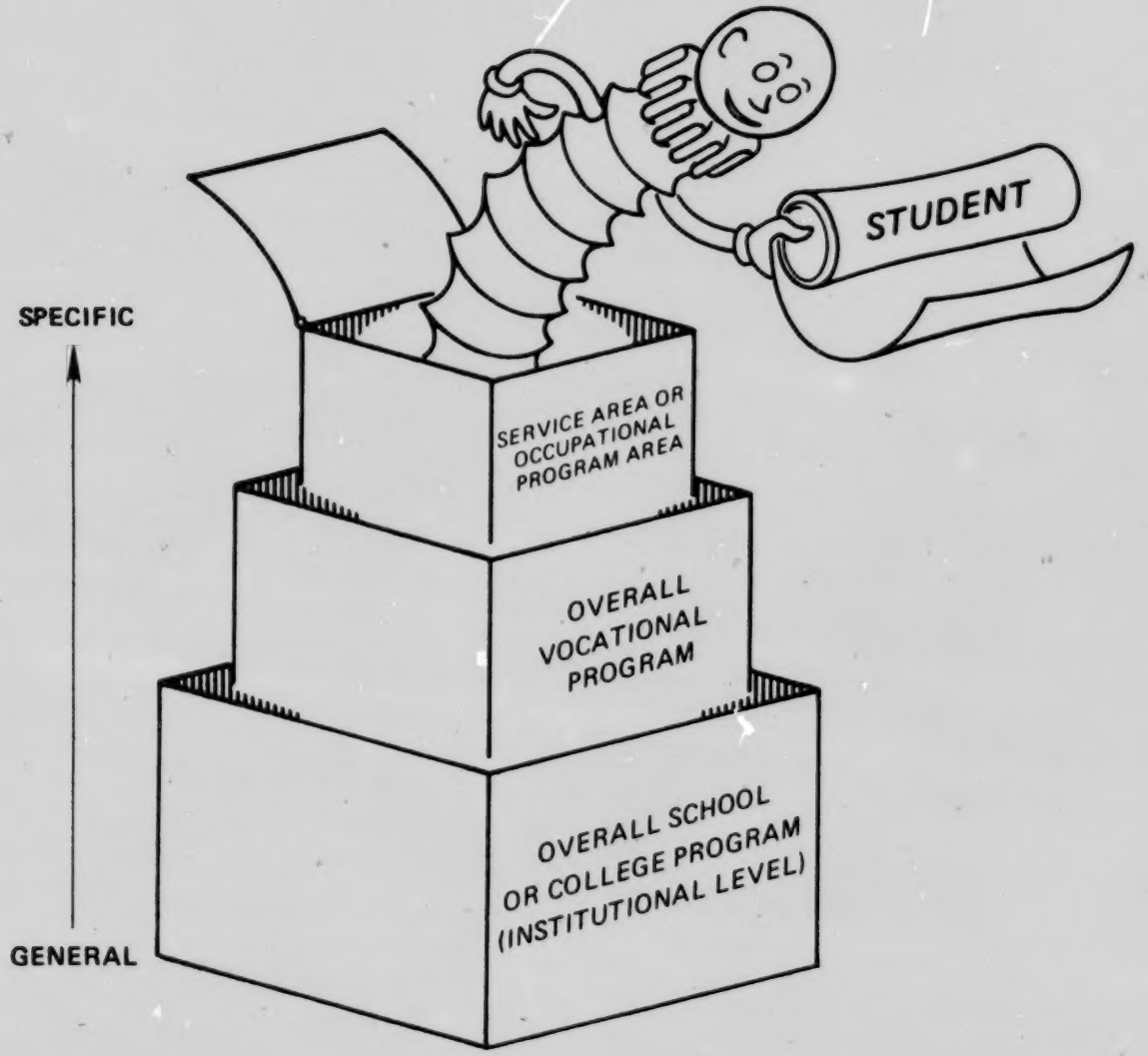
Program goals and objectives, as mentioned earlier, may be written at several levels within any educational system. For purposes of this program planning module, only the three most common and most important levels will be considered. They may be identified as: (1) overall school or institutional goals and objectives, (2) overall vocational program goals and objectives, and (3) vocational service area goals and objectives. (See Figure 2 for an illustration of these levels.) While the vocational planner will be primarily concerned with the overall vocational program and the service area goals and objectives, he/she must be cognizant of the higher level school or college level goals. Goals written at the lower levels should not only reflect the priority needs identified in Step 4 of the planning process, but also should be consistent with, and supportive of, the higher level institutional goals. There will be occasions, too, when the vocational administrator will be asked to participate in revising or updating the institutional goals and objectives so that they more accurately reflect the total needs of the schools population. If vocational needs exist which cannot legitimately be met under the institutions existing statement of goals, then the vocational administrator should take the initiative to see that the overall program goals and/or objectives are revamped.

To help the program planner understand the relationship between program goals written at the three levels mentioned, Sample 1 provides examples of each as illustrations. Please note that the goals and objectives written at each level relate to the same numbered goals and objectives at the higher level. While only one objective per goal has been written here for illustrative purposes, usually several objectives would be written to describe the means that will be used to achieve each goal. For example, to achieve the occupational program level goal of preparing students to obtain employment in agriculturally related businesses, additional program level objectives would probably include: employ a qualified agri-business teacher by the fall of

FIGURE 2

LEVELS AT WHICH GOALS AND OBJECTIVES

ARE COMMONLY WRITTEN



SAMPLE 1

TYPES OF PROGRAM GOALS AND OBJECTIVES

	Sample Goals	Sample Objectives
Overall Institutional Level	1. Provide all students an opportunity to obtain gainful employment skills.	1. Enroll at least 60 percent of the students in one or more vocational education programs by 1980.
	2. Make all students aware of employment and educational opportunities.	2. Enroll all students in a 10th grade career orientation and exploration course by 1979.
Overall Vocational Program Level	1. Offer vocational education programs in areas relevant to student interests and area manpower needs.	1. Establish approved vocational education programs in at least eight occupational areas by 1980.
	2. Provide vocational orientation and exploration training to all interested students.	2. Provide vocational orientation students with employment opportunities information and an opportunity to obtain hands-on work experience in at least three occupational clusters.
Specific Occupational Program Level	1. Prepare students to obtain employment in agriculturally related businesses.	1. Identify at least 15 work stations where student can obtain on-the-job work experience by the fall of 1978.
	2. Help all students make an informed and realistic but tentative choice of future employment or education.	2. Employ another qualified vocational orientation teacher by the fall of 1979.

1978, construct an agri-business classroom and laboratory sufficient for enrolling 25 students, purchase the necessary instructional references, equipment, and supplies by 1978, etc.

For an actual list of vocational program level goals developed by a Somerset County, New Jersey task force, see Sample 2. Note that goals indicate the general purposes or intentions of the overall vocational-technical program of the school system.

For an actual list of vocational program objectives developed for the Vocational High School in the Somerset County School System, see Sample 3. Note that while these program objectives indicate more specific intents than do the goal statements, they are not stated in quantifiable terms.

For a sample list of some allied health program objectives which are quantifiable, see Sample 4. As can be noted, each of these objectives specify the means or action to be taken, the time period for completion of the activity, and the criteria that will be used to judge successful achievement of the objective. This type of program objective lends itself readily to use in later program evaluation efforts and makes it very clear to all concerned exactly what is to be done.

At this point, the development of program goals and objectives may appear to be an impossible task, but such is certainly not the case. While local administrators and program planners need to give strong leadership to this task, no one person should attempt to establish the program goals and objectives on their own. The development of program goals and objectives must be shared with the people involved with, and affected by, the local program of vocational education. Members of the staff planning committee, the local advisory council, and occupational advisory committees, as well as appropriate others, should be involved in one or more task forces or committees to draft and review such statements.[1]

It should also be remembered that in most cases program goal and objective statements will already be in existence and the task will be primarily one of reviewing and updating the existing statements. The exceptions to this, of course, occur when a new vocational school or college is being established, when for some reason goals and objectives have not been previously written, and when new programs or supportive services are being added to meet identified needs.

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[1]For a step-by-step process for developing program objectives from goal statements, you may wish to refer to Module A-6, Develop Vocational Program Goals and Objectives from the Professional Teacher Education Module Series, (Athens, GA: The American Association for Vocational Instructional Materials, 1977).

SAMPLE 2

SOMERSET COUNTY VOCATIONAL-TECHNICAL SCHOOLS

TASK FORCE ON GOALS

SCVTS REVISED EDUCATIONAL GOALS–1975[2]

1. A wide variety of career programs will be offered for all students including the disadvantaged and handicapped.

2. All levels of education in our school district will be coordinated to provide a continuous career education program in an effort to lead our students to gratifying employment.

3. A priority of grades 9 through 12 will be to concentrate on basic education and employment skills to prepare our students for employment and/or further education.

4. Efforts will be made to assist students to better know themselves in terms of their interests and abilities.

5. The school curriculum will include the development of decision-making skills.

6. In addition to the development of salable skills, the school curriculum will provide for the development of a healthy attitude toward work and working with others.

7. In an effort to develop the total student, a knowledge of the basic human needs for good health, physical fitness, and emotional stability shall be included in each student's curriculum.

8. Due to our rapidly changing society, students will be assisted in developing a positive attitude toward continuing education with relation to changing employment needs.

9. Positive attitudes toward individuals having varied social and ethnic backgrounds will be developed through offerings in the natural sciences, social sciences, humanities, and the arts.

10. Students will be made aware of the opportunities in the world of work, and the educational paths to reach specific occupations.

[2]Allison L. Jackson, Developing Hearts, Hands, and Minds. (New Brunswick, NJ: Rutgers--The State University, Vocational-Technical Curriculum Laboratory, 1976), p. 173.

SAMPLE 3

SOMERSET COUNTY VOCATIONAL HIGH SCHOOL

OBJECTIVES OF SOMERSET COUNTY

VOCATIONAL-TECHNICAL HIGH SCHOOL[3]

The main reason for the existence of our school is the student. The curriculum of Somerset County Vocational-Technical High School is to develop to the greatest possible extent the following objectives:

1. To prepare students for useful employment.
2. To keep in contact with industry so that our students will be prepared to fill their needs.
3. To create in the student a desire to learn, and to create within the school the environment and climate for learning.
4. To help the students explore their own abilities and needs in order to make a better choice in areas of specialization.
5. To help students develop a code of ethical principles for the deportment of their personal and civic life.
6. To give all pupils the essentials of a general education.
7. To provide for the health, safety, and welfare of the students while under our jurisdiction.
8. To keep our courses current and consistent with good trade practices.
9. To continue hiring the best qualified teachers.
10. To guide all students in the attainment of good health and physical fitness.
11. To provide extra curricular activities within the bounds of our school make-up.
12. To provide civic and social experiences which will enable the students to adjust more readily in adult life.

[3]Allison L. Jackson, Developing Hearts, Hands, and Minds. (New Brunswick, NJ: Rutgers--The State University, Vocational-Technical Curriculum Laboratory, 1976), p. 162.

SAMPLE 4

SPECIFIC PROGRAM OBJECTIVES

Program Goal: Develop means to train special needs students in the allied health program.

CONDITIONS Time period of target date	MEANS Action to be taken	CRITERIA Statements describing circumstances that will exist if objective has been met
during the coming academic year	provide alternate, flexible modes of instruction for special needs students in allied health program	appropriate modes of alternate instruction for special needs allied health students will be outlined in courses of study, unit plans, and/or individual learning packages
during the coming school year	students in the allied health program will be provided career guidance and counseling	records for each allied health student will indicate they have received career guidance and counseling before they entered the program records for each allied health student will indicate they have received career guidance and counseling during the program
during the first eight-week term of the coming school year	secure work stations, and alternate work for allied health special needs students	all allied health special needs students will have experience at a work station or an approved alternate experience beginning with the first eight-week term
during the coming school year	conduct home visitations to promote better understanding of special needs students in allied health	each teacher will visit the homes of at least three special needs allied health students

In addition to the previously established goals and objectives, other sources of input also need to be considered and used when appropriate. In most cases, the state department of education will have established some short- and/or long-range priority goals for vocational education (see the first learning experience of The Center's module Develop Local Plans for Vocational Education: Part I, for a list of Utah's first and second priority goals). These should be given careful scrutiny as these goals will be used as a partial basis for reviewing and approving or rejecting local applications for state and federal funding. The state plans for vocational education which each state must develop will also contain valuable guidelines as to the type of programs that can be approved for funding.

Another source of information that can be particularly helpful in writing occupational program level goals and objectives are the curriculum guides, core courses of study, and similar publications that are produced and distributed by most curriculum laboratories and state departments of education. Copies of these publications are often available free of charge to school systems within the state.

In the process of writing program goals and objectives to meet the priority needs identified, care should be taken to not overlook the need for statements dealing with supportive service needs. These support services include guidance and counseling, student placement, food services, student testing, teacher and counselor inservice training, student follow-up, and many other types of activities which are just as important as the basic instructional program. Goal and objective statements covering all these areas are needed, if as many as possible of the real student needs are to be satisfied. (See Sample 4 for an illustration of a guidance and counseling program objective.) Failure to meet these needs in the most appropriate ways have in the past resulted in many vocational programs falling far short of the goals established.

Long-Range vs. Short-Range Goals and Objectives

Just as some priorities were established in terms of the overall program and supportive services needed in Step 4, it will also be necessary to establish some of the program goals and objectives written as short-term, and others as long-term. All of the priority needs that were identified should be reflected in one or more of the goal and objective statements developed. By considering the perceived importance of the goals established, and the gap between present efforts and desired outcomes, it is usually possible to place a priority ranking on each goal, resulting in some goals being classified as of immediate or short-range need, and others of long-range need.

The dollars available will always influence the number of goals that can be met within a year or two as opposed to five or ten years. Other goals need to be classified as long range because of the scope of effort involved. For example, if a school has no vocational programs it is unlikely that an extensive construction program can be launched immediately to house a comprehensive vocational program within a year or two. In addition to the large costs involved, the time needed to purchase equipment, hire qualified teachers, etc., would prohibit such a venture. A more realistic short-range goal might entail offering three vocational programs the first year with others to be added year by year until all vocational needs are met.

One educational planning guide makes the statement that "in education, we tend to consider a priority as that which will receive the first dollar left after mandatory expenses are met." While perhaps a bit extreme, it does serve to point out that dollars for education and vocational education are always in limited supply and hence some goals and objectives will need to be delayed for future accomplishment. Other goals require such a magnitude of change, that considerable time is necessary to realistically accomplish them.

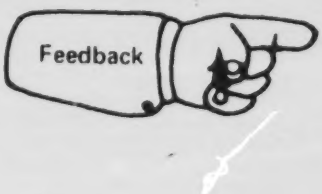
In preparing your local agency applications, both your immediate (one-year) and long-range (five-year) goals should be clearly specified. Some state instructions for preparing a local plan for vocational education further specify that the annual and long-range objectives be prioritized separately, so that if state and federal funds are not available to meet all of the vocational needs identified, those with the highest priority as determined by local decision-makers can be funded first. Goals which are too expensive to implement may have to be ignored for the time being and relegated to the status of a long-range goal. These long-range goals and their associated program objectives should never be lost sight of however, for if they reflect real human needs, ways should be sought to satisfy them as soon as possible.

You may wish to read Mager, Goal Analysis for information and samples of a detailed step-by-step procedure for specifying measurable objectives for program goals.

You may wish to obtain and review statements of program goals and objectives that have been developed by others for a local high school or post-secondary vocational program. Your resource person or state department of education officials should be able to help you secure copies of these statements. Review the goals and objectives in terms of their appropriateness, levels of specificity, the degree to which achieving the objectives would ensure accomplishment of the goals, whether the criteria and conditions for judging the achievement of each objective are sufficient so as to be measurable, etc.

Select an overall vocational program or an occupational program area for which you are familiar and/or responsible, and develop several sample program goals for the program. (Note: If you were writing goals for a real vocational program, you would obtain input from a variety of sources and individuals as described in the information sheet. However, for this activity, you should use your current familiarity with the program you select to generate three or four goal statements.)

For each goal statement, write three or four program objectives (actions) which you feel would be necessary to accomplish the goal. You may find a worksheet format similar to the one presented in Sample 4 useful.



Rate your level of performance on each of the following components involved in writing program goals and objectives. Place an X in the YES or NO column to indicate whether all items met or did not meet each criterion. For any goals or objectives which did not meet a criterion, specify the number(s) of the goals or objective(s) in the COMMENTS column, and briefly indicate the problem. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A column.

GOALS AND OBJECTIVES CHECKLIST

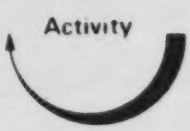
	N/A	YES	NO	COMMENTS
The program goals:				
1. describe broad intents or purposes.....				
2. are written at the program level.....				
3. are realistic in terms of the selected vocational program.....				
The specific program objectives:				
4. are adequate to cover or accomplish the selected program goal.....				
5. specify clearly, completely, and realistically:				
a. the conditions under which they will be accomplished..				
b. the activities to be performed.....				
c. the criteria for measuring their accomplishments.....				

LEVEL OF PERFORMANCE: All items must receive YES, or N/A responses. If any item receives a NO response, revise your goals and/or objectives accordingly, or check with your resource person if necessary.

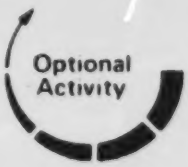
Learning Experience II

OVERVIEW

After completing the required reading, demonstrate knowledge of the procedures involved in generating program and support service alternatives, and in selecting the best alternative solution.



You will be reading the information sheets, "Considering Program and Support Service Alternatives," pp. 25-35, and "Selecting the Best Alternatives," pp. 37-41.



You may wish to read Copa, Geigle, and Imade, Factors, Priorities, and Information Needs in Planning Vocational Education or Copa, Geigle, and Irvin, Critical Issues in Planning Vocational Education.

You may wish to meet with a group of peers to discuss the generation of program alternatives and/or procedures for selecting the best alternatives.

continued

You will be demonstrating knowledge of the planning procedures involved in generating program and support service alternatives by completing the "Self-Check," pp. 43-44.

You will be evaluating your competency by comparing your completed "Self-Check" with the "Model Answers," pp. 45-46.

For information about considering the alternative program and supportive services that can be used to accomplish program goals and objectives, read the following information sheet.

CONSIDERING PROGRAM AND SUPPORT SERVICE ALTERNATIVES

Once vocational program goals and objectives have been established and classified as either short-range or long-range goals, the program planner is ready to consider the various alternatives available for meeting the specified goals and objectives. Usually there are several ways of obtaining or accomplishing any given program goal.

The major factors to consider in Step 6, "Consider Program Support Service Alternatives" of the vocational education planning process are as follows:

- generate alternative strategies that will meet goals and objectives
- assess effectiveness and impact of alternative strategies
- determine resources necessary for each alternative
- assess political feasibility and compatibility with current programs

Although not required as part of the local agency application, any comprehensive planning effort requires that these ways or alternatives be explored in order to arrive at the "best" possible means of achieving or reaching the objective. These alternatives may result from:

a. an innovation which is an outgrowth of imagination, ingenuity, and creativity

b. an adoption of previously existing programs, services, and activities

c. an adaptation or modification of existing programs, services, and activities"[4]

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[4]E. P. Hilton and Steven J. Gyuro, A Systems Approach - 1970 Vocational Education Handbook for State Plan Development and Preparation. (Frankfort, KY: State Department of Education, Bureau of Vocational Education, 1970), p. 46.

Generating Alternatives

Alternative strategies and solutions may be generated in various ways. An excellent starting point involves the use of the brainstorming technique. To elicit as many feasible alternatives as possible, individuals with several different perspectives should be involved in this process. Specialists, consultants, advisory committee and advisory council members, teachers, counselors, other administrators, and parents may well be involved in deriving the alternative solutions. Various information resources such as ERIC, AIM/ARM, current literature, etc., should be investigated for program and support service ideas.

The key to effectively generating alternatives involves searching for all potential solutions to achieving a goal rather than just relying on the techniques that have been used before. This is the stage of the planning process where imagination and creativity must again be given free reign in terms of seeking alternative ways the college or school might be innovative in accomplishing important goals. At this point, planners and their helpers should not confine their thinking to the conventional programs and support services that have been traditionally used. Instead, the possibilities of new technologies, new courses, new services, and modified programs must be explored.

> For example, if inadequate counseling and guidance services were established as the problem with the highest priority, then possible solutions and alternatives might include:
>
> - employ additional counselors
> - incorporate career information into all high school courses
> - establish a career information center for students
> - conduct planned activities on careers by such means as assembly programs, field trips, job shadowing, etc.
> - initiate a vocational career orientation program
>
> Each of the five suggestions would help resolve the problem of inadequate counseling.[5]

The generation of alternative solutions should not be confined to what the school or college can do either. In some cases private agencies will be able to do as good a job, and perhaps an even better job, of meeting certain vocational goals. For example, a private vocational or technical school or college located

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[5]Peggy W. Patrick, Planning Vocational Education: A Guide for Local School Administrators. (Little Rock, AR: Arkansas Department of Education, Vocational-Technical and Adult Education, 1977), p. 25.

near your school may be able to provide the specialized training desired by a few students at a much lower cost than would be involved in establishing new programs to meet these students' needs.

Other private or public agencies may be able to effectively assist the school or college with such things as aptitude testing services, which are often provided by the local employment security office; and student placement, which public and private employment agencies may be able to help with. In many states, school districts have formed consortiums like the Boards of Cooperative Education Services (BOCES) established across New York State. Consortiums such as these provide specialized student services like psychological testing and counseling that most districts could not finance alone.

When doing some comprehensive vocational planning for the Baltimore, Maryland Public Schools, school personnel were asked to rank what they believed to be the best ways of meeting the needs of vocational students. The results of this survey are illustrated in Sample 5.

Some other examples of innovative approaches to meeting problems and accomplishing vocational program goals are provided in the following quote from a study guide on Laying the Groundwork for Vocational Education Curriculum Design.

> Educators have a tendency to look for remedies within the traditional school building, classroom, and laboratory setting and by using "tried and true" teaching methods. There is nothing inherently wrong with doing this--the results in fact are often positive; however, by investigating further--by reading, doing research, and making inquiries--more options become available for meeting needs and solving problems. Identifying alternatives for program needs is one of the most innovative and creative steps in the pre-planning process. The following are examples of identified alternatives to traditional educational solutions:
>
> a. Hughson Union High School in California is operating a curriculum designed to totally integrate vocational and academic education, using several "learning management systems." In an individually prescribed instruction approach, each student spends 20% of his school time in large-group instruction, 40% in small-group instruction, and 40% in independent study. This approach is nongraded, and students proceed at their own rate. There are no failures; a student simply recycles through a unit if he needs additional work. Results, according to "A Policy and System Study of California Vocational Education,"

SAMPLE 5

WAYS PERCEIVED BY SCHOOL PERSONNEL TO PROVIDE BEST FOR MEETING THE VOCATIONAL EDUCATION NEEDS OF A MAXIMUM NUMBER OF STUDENTS[6]

School Personnel by Educational Fields N=324	Ways of Meeting Needs for Vocational Education				
	Comprehensive Neighborhood Schools (%)	Area Skill Centers (%)	Comprehensive Neighborhood Schools and Area Skill Centers (%)	Offering Outside Public Secondary Schools (%)	None of Those Shown (%)
English Teachers	1.5	2.5	6.2	1.5	0.3
Social Studies Teachers	0.6	1.5	4.9	0.3	0.6
Science and/or Mathematics Teachers	1.5	0.9	8.6	1.2	0.6
Industrial Arts and/or T&I Teachers	0.3	1.2	4.3	0.3	0.0
Home Economics Teachers	0.3	0.3	0.3	0.0	0.0
Business Education Teachers	0.6	0.0	5.9	0.0	0.0
Music Teachers	0.0	0.6	0.3	0.0	0.3
Art Teachers	0.0	0.0	0.6	0.0	0.0
Physical Education Teachers	0.3	0.0	0.9	0.0	0.0
Foreign Language Teachers	0.0	0.3	1.2	0.0	0.0
Counselors	0.3	4.6	12.7	0.3	0.6
Administrators and/or Supervisors	0.6	2.8	9.9	0.0	0.3
Work Study/Placement Associates	5.9	1.9	3.1	0.0	0.0
District Total	7.1	17.6	62.3	4.3	2.8

[6]Daniel E. Koble, Jr. and Mark Newton, Master Plan for the Development of Vocational Education Skill Centers in the Baltimore City (Maryland) Public Schools. (Columbus, OH: The Center for Vocational Education, The Ohio State University, n.d.), p. 26.

have been spectacular: "The dropout rate has been reduced from 30% to two dropouts in two years; 13 previous dropouts have returned to school....The continuation school, for those who had gotten out of step in the regular school program, has been closed. Hughson is now taking dropouts from Turlock and Modesto. The percentage of the student body pursuing post-high school education has increased from about half to about 70%.... Approximately one-third of the terminal high school graduates are presently employed in jobs directly related to their major emphasis in school."

b. Instructional Materials. Department of Defense instructional materials are being made accessible to teachers by a Northwestern Regional Educational Laboratory (NWREL) project. Noting that military services had training programs for which many materials had been developed, NWREL investigated their usefulness for schools. An examination of 42,000 transparencies and 500 films used in Navy training revealed 12,000 suitable items. NWREL is now developing index catalogues in seven vocational areas--auto mechanics, welding, machinist trades, basic electricity, basic electronics, first aid, and marine navigation--for distribution to teachers in NWREL's five-state region. The final phase, with the cooperation of the state departments of Alaska, Idaho, Montana, Oregon, and Washington, is to establish clearinghouses for the cataloqued materials.

c. Career Counseling and Guidance. VIEW (Vital Information for Education and Work), originally developed in San Diego, California, is a system that stores microfiche mounted in a data-processing aperture card. With state and regional modifications (including, in some places, changing the acronym base to "Vocational Information for Education and Work"), VIEW is beginning to enjoy widespread usage. In California, the system is one of the major components of 11 career information centers.

The VIEW system involves compiling (and frequently updating) information on different occupations, putting the information into a standard format, which can include both typeset material and illustrations, transferring the material on a particular occupation to a piece of microfilm, and mounting the fiche in a data-processing aperture card. Decks of VIEW cards are then placed, along with a microfiche reader or reader-printer machine,

in locations where they are accessible to students and their teachers and counselors.[7]

Assessing the Effectiveness and Impact of Alternatives

In preparation for the decision that must follow, each program alternative generated should be considered in terms of its likely effectiveness in meeting the specified goals and objectives. Effectiveness in this sense is used as a quality factor. For instance, in the case of the five alternatives presented earlier as potential solutions to the problem of inadequate counseling and guidance, professional judgments must be made by the best experts available as to which of the five alternatives are likely to result in the greatest improvement in the quality of counseling and guidance services provided. It may be judged in this instance that quality could be improved most by the employment of additional counselors and least by incorporating career information into all high school courses. Such judgments are usually subjective and estimates by experts at best. However, when coupled with other inputs such as the cost of the various alternatives, they provide valuable information for decision-making. Some planners attempt to rank all of the plausible alternatives from highest to lowest in terms of their likely effectiveness.

In a similar manner, the impact of alternative approaches in terms of the numbers of students that can be served by each approach is another valuable type of data needed at this point. The assessment of likely impact on the problem or need reflected by the goal in question is the point of concern. Some alternatives generated for any particular goal are likely to reach more students (a quantity factor) and, thus, to have greater overall impact on solving the problem than others. In guidance and counseling, for example, it might be argued that the employment of additional counselors and/or the incorporation of career information into all high school courses would impact most upon the goal of providing all students with more career planning information.

In some instances, the judgment of likely impact of one alternative as compared to another will be clear-cut and easy to make. In other cases, the judgment will not be easy, will be quite subjective, but will need to be made by the most knowledgeable persons available to assist in the planning effort. In the case of the guidance and counseling alternatives, it would be most appropriate to obtain judgments about both the likely effectiveness and impact of the various alternatives from the guidance staff, the high school teachers, the librarian, and other administrators.

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[7]James A. Dunn et al., Laying the Groundwork for Vocational Education Curriculum Design: Module 5. (Palo Alto, CA: American Institutes for Research, 1976), pp. 17-20.

Determine Resources Required by Each Alternative

Before decisions can be made about the best alternative for any given goal, an estimate of the cost of each alternative should be carefully made. A more detailed and exact budget is normally developed later, after a decision has been made about which alternative will best meet the districts needs. The amount of available funds is likely to outweigh many other factors when decision-makers are reviewing alternative solutions, so the careful estimation of cost is an essential task at this point in the planning process. It is at this point where the school or college's business manager can be most helpful.

For each feasible alternative the following cost information should be provided.

- an estimate of the start-up or initial cost of the proposed alternative (This will include costs of facilities construction or modification, equipment, curricular and reference materials, recruitment of staff, and other intial items that take time or cost money.)

- an estimate of the ongoing or operational costs of the proposed alternative (Here should be included the cost of consumable supplies, personnel salaries, transporation costs, maintenance costs and other overhead charges.)

- an estimate of the likely student:teacher ratio and the per pupil cost of the alternative

- suggestions as to how the alternative could best be financed, if any (For example, in some instances, an alternative might be eligible for 100% funding by submitting a proposal to an agency or foundation that is known to be interested in funding the type of program or service desired.)

As it should appear, this is an important, but not an easy, task that must be completed before data-based decisions about which alternative is best can be made. This type of cost estimation will permit a dollar figure to be associated with each program goal and/or objective. Care must be taken to charge only a fair share of the personnel, equipment, and other costs that will be involved in implementing the particular goal or objective. Informed judgments must be made when deciding what percentage of a teacher's, counselor's, and/or other person's time will be required to implement, maintain, and supervise the particular activity in question. Any special costs that may be involved (e.g., postage or phone expenses required to carry out follow-up studies) must be considered. In the final analysis, what is desired is a comparison of the amount of money required to achieve each goal so that the costs involved can be compared with the emphasis placed on the goal. If it appears that an exceptionally large amount of money will need to be spent to achieve a

low priority goal, while a small amount will permit the achievement of a high priority goal, a clear justification exists for choosing to implement the high priority goal (all other factors being equal).

While there is no magic formula for completing this step of the planning process, some simple cost estimate forms have proven very useful. A sample form using a program goal statement and its associated program objectives as a focal point is presented as Sample 6. If desired, the basis for cost estimation can be a smaller entity such as an individual program objective, or a larger entity such as the total costs for a new occupational offering or a new or modified supportive service such as placement or follow-up.

Assess Political Feasibility and Compatibility with Current Programs

When considering program and support service alternatives, one additional group of factors needs to be given consideration. These factors may be grouped together and labeled "political feasibility and program compatibility factors." All other factors being equal or nearly so, these often will play an important role in the final selection of the best alternative solution. An all inclusive description of the type of factors that need to be taken into consideration at this point in the process is difficult, if not impossible to prepare. What is politically feasible in one college or school and community, may be completely impractical in another community because of the different values, expectations, and beliefs held by citizens, business, and labor groups.

By considering the proposed alternatives compatible with current programs, we mean the following.

- The proposed alternative will not take away large numbers of students from another needed vocational program which is already operational.--While there may be enough students to justify offering one occupational program in a given cluster area, there may not be sufficient numbers of interested students to offer a second program of the same nature. Instead the current program may need to be modified so as to accommodate, through more individualization or a general cooperative work-study approach, a broader range of student interests than are currently being met.

- The proposed alternative will not duplicate another agency's effort.--If the local employment agencies, public and private, for example, are doing a good job of helping all vocational program students find employment as they exit programs, it may be duplicative and unwise use of public funds to set up a school placement program.

SAMPLE 6

GOAL COST ESTIMATION FORM

Program Goal _____

_____

Associated Program Objectives:

1.

2.

3.

4.

Cost Category	Initial (Start-up) Costs	Ongoing (Yearly) Operational Costs
a. Personnel		
b. Equipment		
c. Supplies and Materials		
d. Facilities		
(1) Office		
(2) Classroom		
(3) Laboratory		
e. Maintenance		
f. Travel		
g. Miscellaneous (postage, phone, printing, duplication, etc.)	_____	_____
TOTAL		

- Another example of duplicated effort might involve the conduct of a follow-up study. If the overall school or vocational program is conducting follow-up studies, it should be unnecessary for each occupational program or vocational service area to conduct its own study. In some states, a statewide system of follow-up has already been implemented, hence local follow-up studies should be conducted only when they supplement rather that duplicate a statewide effort.

- The proposed alternative should be compatible with the other educational programs from a health and safety viewpoint.--Will highly toxic or combustible materials be utilized? Will obnoxious fumes, odors, smoke, or distracting noises be created that will interfere with the learning or health and safety of other students enrolled at the institution. Will a special facility be required because of the hazardous materials or loud noises involved? These and other health and safety factors need to be carefully scrutinized.

When considering the political feasibility of the proposed alternatives, the following types of factors need to be analyzed.

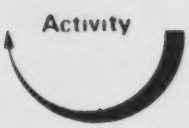
- How acceptable will the proposed program or service be to the community?--Did a community survey or other planned activity, or an advisory committee or advisory council meeting elicit reactions that suggest the alternative would be favorably or unfavorably viewed?

- Will parents and students support and participate in the program or service sufficiently to justify its cost?--There should be sufficient data (student and/or parent surveys) to indicate real interest on the part of students and their parents in any proposed programs or supportive services. Without the support of the intended clientele, a program or support service stands little chance of being successful.

- Will labor, business, and civic groups support the program or service?--If there is strong opposition to a training program that might interfere or somehow duplicate a business or labor supported apprenticeship program, a careful analysis of the pros and cons of establishing such a program is in order. Without sufficient business and labor support, for example, work stations for cooperative experience programs and jobs for program graduates may be completely unavailable or not available in sufficient numbers.

- Will the proposed program be appropriate for the level of students involved?--Some technical programs are appropriate only for post-secondary vocational or technical institutes and/or community college offerings. At the same time, some vocational programs are most appropriately offered at the secondary level.

- Will the proposed program or service be viewed as a luxury or as a needed activity?--The purchase of large and expensive laboratory equipment may be viewed as unnecessary, if experience with such equipment can readily be obtained through cooperative work experience programs with local business and industry. Up to the present, many educators and non-educators have viewed a school placement service as an unnecessary luxury and a duplication of what public and private employment agencies do. Studies are revealing, however, that few vocational students are ever helped in their initial job searches by these agencies. Unless the community fully understands the need for such a placement service, it might be politically unfeasible to establish such.



For information on using decision-making criteria and involving appropriate persons in selecting the best alternatives, read the following information sheet.

SELECTING THE BEST ALTERNATIVES

The seventh step in the comprehensive vocational education planning model presented involves selecting from among the various alternatives generated, the best program and support service options available. This step in the planning process is basically a decision-making step where the best program and support service alternatives are selected for actual implementation (or proposed implementation if actual implementation is dependent upon state department approval and funding).

The major factors to consider in Step 7, "Select the Best Alternatives" of the planning process are:

- involve appropriate persons
- use decision-making criteria

In a sense this step may be viewed as the culmination of all the data collection, needs assessment, analysis, etc., that have been completed in the comprehensive and somewhat complex process of vocational program planning. At this point all the data has been assembled, the alternatives have been delineated, and now decisions must be made as to which solutions will be best for your school or college.

Involve Appropriate Persons

One of the most important things to remember at this point is the principle of involvement. Simply stated this is the principle of involving in the planning process those persons who will be affected by the program outcomes and who will be responsible for implementing the plans conceived. While administrators and program planners may be tempted at this point to "go it alone" because it is certainly easier and more expeditious to do so, such urges must be resisted. While the final decision-making authority rests with the school board and, through their delegation, with the superintendent or president of the institution, wise educational leaders will seek and utilize the inputs and recommendations of informed and concerned others. In the vocational education planning process, they should at least partially delegate this decision-making function to the staff planning committee and to the local vocational advisory council. The latter group's recommendations must be sought by law under the

Vocational Education Amendments of 1976. Although the responsibility for these decisions rests at the highest levels, we know from considerable experience and research that a program involving educational changes has the best chance of success if those directly affected play a major role in its planning.

Use of Decision-Making Criteria

While there is considerable latitude in the method which can be used to select among alternatives, some type of rationale, data-based, and objective approach involving predetermined criteria should be selected. The temptation of many administrators and program planners to "fly by the seat of the pants" at this point must be avoided. A more logical and defensible approach involves the specification of some criteria, and some use of a ranking approach with the criteria forming the basis for informed judgments.

> For example, the model developed in Fresno, California, provides for the assignment of an arbitrary score (ranging from plus 4 positive effect to minus 4 negative effect) to each of the proposed solutions. A separate ranking is assigned for each of a variety of factors: staff reaction, community reaction, student reaction, costs, availability of resources, time needed to implement and success of similar ventures. It is then possible to derive a cumulative score for each alternative, and rank them. The factors to be rated may vary to suit the decision-makers, and more sophisticated variations can provide for a system of weighting factors.[8]

There appears to be little agreement as to which factors ought to be used in the ranking process. If Step 6 has been carried out as outlined earlier in this information sheet, data will be available on the:

- likely effectiveness (quality) of each alternative
- likely impact (quantity) of each alternative
- resources necessary to implement each alternative
- political feasibility of each alternative
- compatibility of each alternative with parent programs

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[8]Kenneth Pack and Bernard Kaplan, Comprehensive Planning in Education, No. 1 in a Series of Handbooks on Comprehensive Planning for Local Education Districts. (Trenton, NJ: Department of Education, 1974), p. 12.

Using the guidance and counseling problem and alternatives presented earlier as an example, a ranking form such as the one presented as Sample 7 could be used.

Other factors commonly mentioned suggest that criteria for this type of decision-making include:

- chance of success of each alternative
- ease of implementation
- cost-effectiveness of each alternative
- staff (educators) reactions to each alternative
- availability of resources

Another variation of this type of ranking approach involves assigning different weights to different factors. The effectiveness, impact, and cost factors, for example, may be given double or triple the weight given to the other factors. Another variation involves giving more weight, for example, to the overall rankings of administrators and board members as opposed to advisory council or staff member rankings.

In a Minnesota research study using simulation techniques and designed to analyze decision-making procedures, eight major factors were identified as keys in the decision-making processes used by a group of selected educational planners as a basis for justifying their decisons about program alternatives. The question posed by the Minnesota researchers was "What factors were used in making decisions concerning the questions posed through the simulation exercise?" The major factors that emerged and their operational definitions are presented in Table 1.

While these factors have not been proven to be the most important or the only factors that should be used as criteria for making planning decisions, they were found to be important by a selected group of experienced planners dealing with real program alternatives. Since there is not a uniformly agreed upon list of criteria that should be used, local planners will have to decide which criteria are most relevant for their particular situation. Perhaps most important is that the criteria being used be reasonable and be made explicitly known to all concerned and involved.

SAMPLE 7

RANKING OF ALTERNATIVE SOLUTIONS[9]

Goal: Improved Guidance and Counseling Services

Alternatives	Criteria												Total Weight	Overall Priority Ranking
	Effectiveness				Impact				Cost				Political Feasibility				Program Compatibility					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Employ Additional Counselor		2				2					4				3				4		15	2
Incorporate Career Information Into All Courses		1				3				2				2				2			10	4
Career Information Center		1				1				2				3				4			11	3
Planned Career Information Activities		1				1				2				2				3			9	5
Vocational Career Orientation Program				4				4			3				3				4		16	1

1 = Low 2 = Moderate 3 = High 4 = Very High

[9]Adapted from Peggy W. Patrick, Planning Vocational Education: A Guide for Local Administrators. (Little Rock, AR: Arkansas Department of Education, Vocational-Technical and Adult Education, 1977), p. 27.

TABLE 1

MAJOR FACTORS (CATEGORIES) AND THEIR OPERATIONAL DEFINITIONS[10]

Major Factors	Operational Definition (Factors Cited by Simulation Participants)
Satisfaction	Individual Needs of People: preferred occupations of students, special needs of individuals, student interest, cost to students, ability to serve students, etc.
Satisfactoriness	Needs of Society: occupational demand, placement rate, employer acceptance, economic growth, occupational turnover rate, business and labor interest, etc.
Efficiency	Educational and/or Program Cost: staff and facilities availability, duplication of effort, cost is prohibitive, entry level program, cost-effectiveness, cost per student, etc.
Alternative Sources	Other Educational Sources: other agencies better tooled to provide training, apprenticeship approach, secondary education is sufficient, etc.
Quality	Educational and/or Program Quality: program prerequisites and organization, local support services, on-the-job training opportunities, program comprehensiveness, etc.
Equal Opportunity	Equal Opportunity for Education: vocational education should be made available to all who can benefit, career education for minorities, cultural goals of minorities are different, etc.
Legal	Legal Requirements: college degree program, vocational education act, professional occupation, skilled worker, limited training required, etc.
Mutual Satisfaction	Combined Needs of Society and Individuals: programs could provide useful training, needs of local area, documentation for need of programs, needs of nation, upgrading of existing occupations, etc.

[10]George H. Copa et al., Factors, Priorities, and Information Needs in Planning Vocational Education: Views of Selected Educational Planners in Minnesota. (Minneapolis, MN: University of Minnesota, Department of Vocational and Technical Education, 1976), p. 23.

For information about the research study conducted by the Minnesota Research Coordinating Unit dealing with the procedures used to identify important vocational education decision-making factors, you may wish to read Copa, Geigle, and Imade, Factors, Priorities, and Information Needs in Planning Vocational Education.

OR

For information about a series of simulation exercises dealing with vocational education planning, you may wish to read Copa, Geigle, and Irvin, Critical Issues in Planning Vocational Education. You may wish to meet with some of your peers to complete one or more of the eight simulation exercises presented.

You may wish to meet with 1-5 peers who are also taking this module to discuss procedures for generating program and support service alternatives and/or to discuss procedures for selecting the best alternative.

The following items check your comprehension of the material in the information sheets, "Considering Program and Support Service Alternatives," pp. 25-35, and "Selecting the Best Alternatives," pp. 37-41. Each of the five items requires a short essay-type response. Please explain fully, but briefly, and make sure you respond to all parts of each item.

SELF-CHECK

1. Why should local administrators take the time necessary to develop alternative delivery strategies for each major program goal, instead of simply devising one workable alternative?

2. What technique is recommended for the generation of alternatives, and who should be involved?

3. What information about each program alternative generated should be assembled in preparation for the selection of the best alternative step that follows?

4. What basic planning principle should be adhered to when selecting the best alternative for meeting each program goal?

5. Describe the type of criteria that should be used in judging which of the alternatives available to meet a given goal will be the best.

Compare your completed responses to the "Self-Check" with the "Model Answers" given below. Your responses need not duplicate the model responses; however, you should have covered the same major points.

MODEL ANSWERS

1. The whole purpose of the comprehensive planning process is to help planners arrive at the best possible solution to each vocational need that exists. It is only through a careful consideration of all the available program and support service alternatives that the "best solution" can be derived.

2. The brainstorming technique is recommended as probably the best approach to developing a comprehensive array of vocational program and/or support service options for meeting each priority goal. During this process, everything possible should be done to encourage the development of innovative and creative approaches for meeting the goals.

   As many different knowledgeable persons as possible should be involved in the process of generating alternatives. Among those that should be included are vocational teachers, counselors, other administrators, consultants, parents, and advisory committee and advisory council members.

3. At least the following types of information should be developed or otherwise assembled for selection of the best alternative:

   a. likely effectiveness (quality) of each alternative
   b. likely impact (quantity) of each alternative
   c. estimate of the resources needed to implement each alternative
   d. assessment of political feasibility
   e. assessment of compatibility with current programs

4. When selecting the best alternative, the principle of involving in the planning process those persons who will be affected by the program outcomes and who will be responsible for implementing the plans conceived, should be closely observed. The new 1976 Vocational Education Amendments require specifically, that members of the local advisory council be one of the groups involved.

5. There is little agreement apparent as to what criteria should form the basis of the selection process. It is recommended that the criteria to be used be explicitly agreed upon beforehand and that some type of ranking of

each alternative across the criteria selected be completed. The following represent some of the most commonly used criteria:

a. likely effectiveness
b. likely overall impact
c. resources required
d. political feasibility
e. compatibility with present programs
f. ease of implementation
g. cost/effectiveness of alternatives
h. educator reactions to alternatives

LEVEL OF PERFORMANCE: Your completed "Self-Check" should have covered the same major points as the model responses. If you missed some points or have questions about any additional points you made, review the material in the information sheets, pp. 25-41, or check with your resource person if necessary.

Learning Experience III

OVERVIEW

After completing the required reading, demonstrate knowledge of the important concepts and procedures to follow in developing implementation plans for vocational education.

You will be reading the information sheet, "Developing Implementation Plans," pp. 49-73.

You will be obtaining and reviewing copies of the application forms that must be completed by local educational agencies applying for vocational funds in your state.

You may wish to meet with peers to discuss concepts and procedures for developing local vocational education program plans.

You will be demonstrating knowledge of concepts and procedures to follow in developing implementation plans by completing the "Self-Check," pp. 75-76.

You will be evaluating your competency by comparing your completed "Self-Check" with the "Model Answers," pp. 77-78.

For information on the major factors to consider and procedures to follow in developing local plans for implementing the alternatives selected, read the following information sheet.

DEVELOPING IMPLEMENTATION PLANS

Once the program and support service alternatives to be implemented have been selected (actual implementation may still be contingent upon approval for federal and state funding), the alternatives must be developed into a plan for implementation. Effective implementation must be planned and well coordinated to ensure the development of a smooth and effective plan of operation. Now that the list of program and support service options has been reduced to those that will be put into operation if funding is forthcoming, actual detailed plans, budgets, and time schedules need to be prepared.

The major factors to consider in Step 8, "Develop Implementation Plans" of the planning process are:

- specify major activities and events
- determine total resource requirements
- develop a management plan
- develop and submit application forms
- begin actual implementation

Without effective implementation, the entire planning process is reduced to a more or less meaningless exercise. The implementation step should be viewed as the culmination of the assessment and developmental phases of the planning process, and the beginning of steps to ensure successful implementation of the chosen solutions. A concrete and specific plan of action is needed that will ensure success to the maximum extent possible.

This step also represents the point at which refinement and consolidation must occur. Refinement must occur in the sense that estimated costs for various alternatives now need to be reviewed and refined into actual budgets for implementing each of the alternatives selected. Consolidation must occur in the sense that all the activities necessary to implement the various program goals and objectives need to be assembled into a master plan of events along with a schedule of who is to do what and when.

For schools and colleges large enough and fortunate enough to have persons designated as planners, this is the stage of the process when the responsibilities of the planners often ends (they are seldom responsible for actual implementation), and the administrators and professional staff begin to take full charge. Needless to say, the planner can continue to be of much assistance as plans are developed.

Specify Major Activities and Events

A well developed implementation plan can optimize the chances for successful implementation by carefully delineating the activities that will need to be conducted to achieve the agreed upon goals, objectives, and solutions. During this specification process, an effort should also be made to identify any remaining constraints that might prevent or inhibit the successful completion of important activities.

The major activities and events can be organized and consolidated in several different ways. One recommended approach involves clustering or consolidating all the different alternatives selected into the vocational service areas and/or support service areas affected. For example, any changes to be implemented that would affect the guidance and counseling support service would be grouped into that area. In the same manner, programs that would affect personnel and events in the trade and industrial area, would all be clustered into a master schedule of activities and events for that area.

The amount of detail that is placed in the major activities and events chart should be sufficient to outline the major activities, tasks, and steps to be completed. However, it should not be so detailed as to make its development an unnecessary burden. This type of planning device is sometimes referred to as a "work breakdown structure." A sample format for this purpose is presented as Sample 8.

The activities, tasks, and steps contained in a work breakdown structure of this nature should be sequenced in the best or most logical order for carrying them out. In some cases an activity, task, or step will need to be completed before others can. In some cases activities can and should be conducted concurrently, and in other cases, sequence will probably not matter.

Frequently persons working at the higher levels of administration will not want the same detail as may be needed and desirable for the teacher or counselor who must carry out the steps. For these administrators and perhaps for board members, a mere listing of the major activities and events themselves may suffice. The administrator and other planners and implementers should develop this type of work breakdown schedule in the detail most helpful to them. Such a chart should be viewed as a planning and sequencing tool.

SAMPLE 8

WORK BREAKDOWN STRUCTURE

Service Area or Supportive Service: _____

Activity or Event	Tasks to be Performed	Steps to be Taken
1.	a.	1. 2. 3.
	b.	1. 2. 3. 4.
	c.	1. 2.
2.	a.	1. 2. 3.
	b.	1. 2. 3.
	c.	1. 2. 3.

Determine Total Resource Requirements

During the planning for preparation of alternatives, cost estimates were developed for each of the proposed program and support service (ancillary) activities. Now that the alternatives that will be implemented have been selected, detailed planning must be completed with regard to the various resources (personnel, supplies, equipment, etc.) that will be needed to actually initiate and operate a new program or service, or to maintain an existing program. While estimates were satisfactory for the comparison of alternatives, at this point estimates need to be carefully reviewed and refined into actual budgets for operating the programs.

If a good job of detailing the activities, tasks, and steps to be carried out for each alternative has been done, as should be done in developing a work breakdown structure, it will provide a good guide as to the activities and tasks that will cost money. Another source of help, will, of course, be old budgets that have been developed previously. Care should be taken to determine separately for each vocational program and support service to be implemented, the best possible cost information. It will be necessary in most cases to involve the vocational teachers who know what equipment and supplies are needed for the programs they will teach. It will also be necessary to involve the business manager who will know how best to assign maintenance and overhead costs to various activities, and others as appropriate depending upon the particular program or support service in question.

In budget development, it will usually be necessary to ask staff and program supervisors to carefully distinguish between essential equipment and supply items, and those that would be nice to have. Some administrators ask teachers to clearly identify the priority that should be given to each item requested. Persons compiling the budget request items will need access to equipment, reference, and supply catalogues so as to determine actual prices.

The major resource items of concern in determining the total resource requirements needed follows.

Personnel.--The major cost in the operation of many programs and support services is personnel. Careful decisions must be made about the number of teacher(s) needed for a new program, and the percentage of time a teacher, counselor, or other specialist will be assigned to a specific support service activity. No program or activity should be overcharged in terms of the time that will be devoted to it, nor should it be undercharged. For new programs and services, informed estimates will often have to be made. If a particular program is to have the help of support personnel such as teaching aides, a secretary, or work-study student, these charges must be calculated.

Equipment.--Equipment becomes a major cost item for some programs like machine shop, but is a relatively small percentage of the total cost of other programs such as distributive education. In most cases, equipment is defined as items which have a useful life of more than one year and which are usually repaired rather than replaced. The definition of what constitutes equipment usually includes small hand tools, machines of any kind, games, models, furniture, and reference books.

A sample budget request form for equipment is presented as Sample 9.

SAMPLE 9

EQUIPMENT BUDGET REQUEST

Vocational Program or Support Service: _____

Date Submitted: _____ Submitted By: _____

Quantity	Item Description	Unit Cost	Total Cost	Priority

Supplies and Materials.--Instructional supplies are commonly defined as those items which will normally be consumed yearly in the course of instruction or in providing the supportive service needed. A sample format that may be used for this purpose is presented as Sample 10.

SAMPLE 10

SUPPLIES BUDGET REQUEST

Vocational Program or Support Service: _____

Date Submitted: _____ Submitted By: _____

Quantity	Supply Description	Unit Cost	Total Cost	Priority

Some administrators prefer to ask information about recommended suppliers that can later be used by the business office in submitting actual purchase orders. Sometimes information is also asked regarding whether materials are for student use or instructor use. Forms for this type of budgeting are usually prepared in triplicate or larger quantity so that the originator, administrator, and business office can all have a copy.

Facilities.--When new vocational facilities are to be constructed, most states require the completion of a special application dealing with such factors as: (a) justification of need for facility, (b) projected enrollment in the facility, (c) instructional programs to be housed in the facility, (d) area to be served, (e) how total construction costs, including local share, will be financed, and (f) planned construction start and completion dates. If a new facility is needed, your state department of education vocational division, should be contacted for the appropriate forms and application instructions.

For many programs and support services, facility costs will be limited to the maintenance and overhead cost of physical plants already in existence. For others, a certain amount of remodeling or renovation may be necessary.

Maintenance Costs.--These costs may or may not be included under facility costs. The important point is to see that appropriate charges for heat, water, electricity, custodial, and other services are included in the total budget, regardless of the classification scheme.

Travel Charges.--Most vocational teachers and many of the support service personnel such as job placement coordinators will need to travel as part of their work assignments. Each person involved should estimate the number of miles to be charged against his or her budget for school business.

Miscellaneous.--Last but not always least, any other legitimate items of expense such as postage, rental of equipment and the like, should be considered, and if needed, budgeted for.

Individual budgets prepared in the general manner outlined should be reviewed by the appropriate supervisors and/or administrators. Once items requested have received the necessary approval(s), all the program and support service budgets should be summarized and consolidated to provide a grand total cost figure for each item category.

When completing the final budget process, administrators and program supervisors at the appropriate levels should carefully examine the budget requests to see that minimum state program and instructional standards will be met as outlined in the state plan for vocational education. Most states have established minimum requirements for classroom and/or laboratory space per student, minimum equipment lists, class size, etc. Requirements vary considerably from program to program and from state to state.

Develop a Management Plan

Many different management techniques are available for consideration. Only brief mention will be made here of some of the standard management techniques in use by educators because of the complexity of these techniques and their rapidly changing nature. Probably the following four techniques have received the most attention and use by educators in recent years.

- Management by Objective (MBO)
- Systems Analysis
- Program Evaluation and Review Technique (PERT)
- Planning, Programming, Budgeting System (PPBS)

For a general description of all these systems, you may wish to refer to Management Systems for Vocational and Technical Education, (Information Series No. 51, Columbus, OH: The Center for Vocational Education, 1971). For a detailed description of PERT

as a systems tool and the systems approach to educational administration, you may wish to refer to Knezevich, Stephan J., Administration of Public Education (New York, NY: Harper and Row, 1969, Chapter 29).

Regardless of the specific technique or combination of techniques used, it should enable you to be aware of the process being made to implement and fully operationalize all programs and services. Any good management technique provides for an ongoing monitoring of activities to provide management the necessary feedback to keep the implementation effort "on-course."

Two important aspects of any sound management procedure include the scheduling of expected beginning and/or completion dates for major activities and events, and the specific assignment of a person or persons who will be responsible for seeing that the necessary work is completed. This type of management takes into account the key questions of "what will happen when" and "who will be responsible for seeing that it happens successfully." Time lines and personnel assignments can be made alongside of the work breakdown structure charts mentioned earlier, if desired. Many administrators find helpful some type of time-phased master activity network such as the one shown in Figure 3 dealing with the activities that need to be completed as part of a national training program for persons preparing local administrators of vocational education.

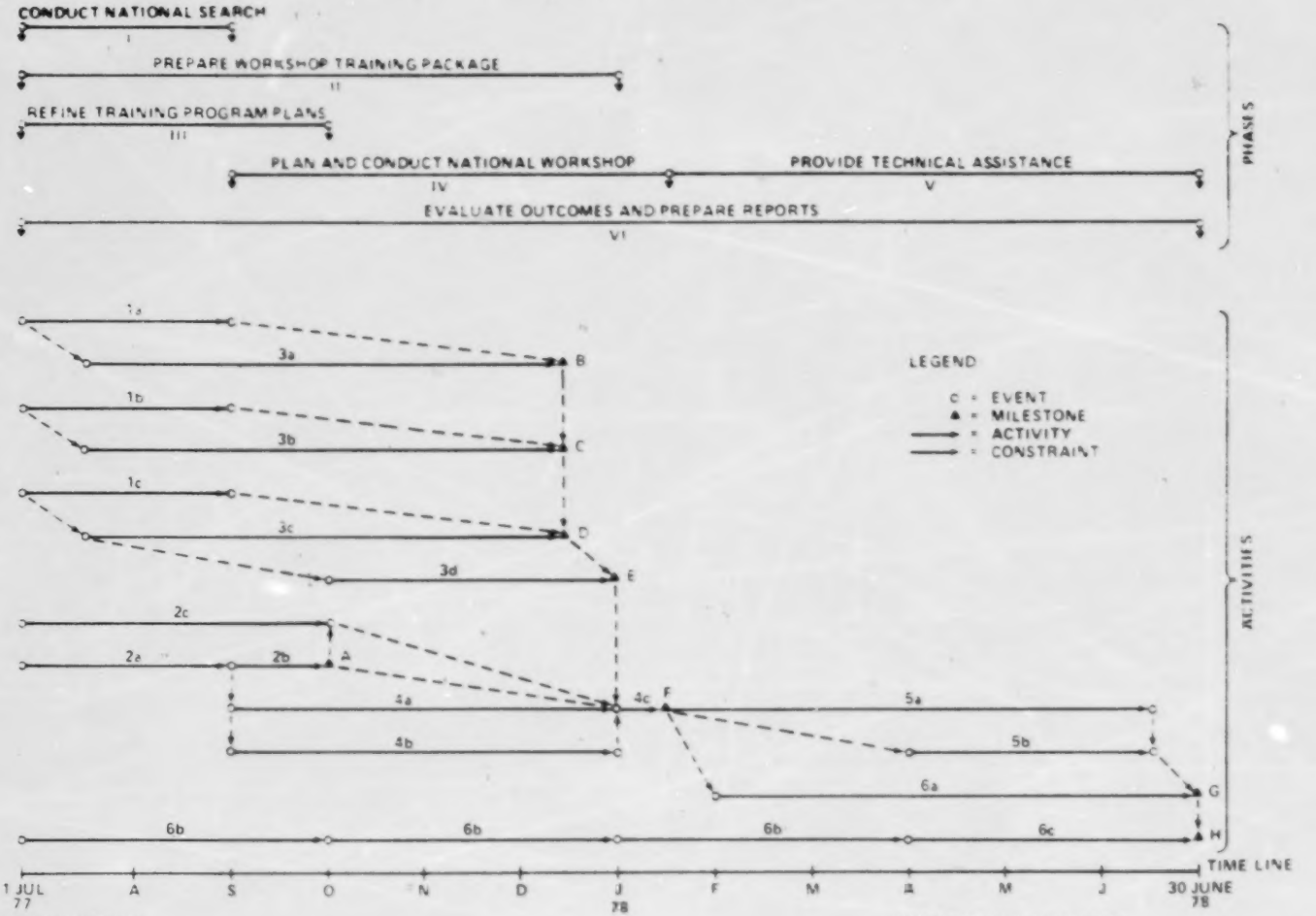
Develop and Submit Application Forms

To obtain federal and state funds for vocational education, local administrators annually must submit a detailed one-year plan for vocational education for the college or school district, and a five-year long-range plan. If the various planning processes and procedures outlined thus far in the vocational education planning model (see Figure 1) have been well conducted, this activity is a relatively simple procedure of obtaining the necessary approvals from the appropriate administrators, the chairperson of the local advisory council, and the board of education or board of trustees. The major task, once the necessary local approvals have been obtained, is the completion of the necessary local application forms.

While the local application forms required by various states request basically the same types of information, each state requires that its own local application forms and instructions be used. These forms often are modified somewhat from year to year, hence it is extremely important that you as a local administrator of vocational education, make certain you have the current forms and instructions for the application you must file. And make sure you follow the instructions and submit them on, or preferably before, the deadline dates.

FIGURE 3

MASTER ACTIVITY NETWORK: TIME-PHASED



ACTIVITY INVENTORY

1a	IDENTIFY ADMINISTRATOR RESEARCH STUDIES	4a	PLAN NATIONAL WORKSHOP
1b	IDENTIFY ALTERNATIVE DELIVERY STRATEGIES	4b	PREPARE WORKSHOP MATERIALS AND MAKE LOGISTICAL ARRANGEMENTS
1c	IDENTIFY INSTRUCTIONAL MATERIALS	4c	CONDUCT NATIONAL WORKSHOP
2a	ESTABLISH NATIONAL PLANNING COMMITTEE	5a	MONITOR TEAM IMPLEMENTATION ACTIVITIES
2b	CONSULT WITH NATIONAL PLANNING COMMITTEE	5b	PROVIDE ON SITE TECHNICAL ASSISTANCE
2c	SELECT TRAINING PROGRAM PARTICIPANTS	6a	EVALUATE IMPLEMENTATION ACTIVITIES
3a	PREPARE SYNTHESIS OF RESEARCH STUDIES	6b	DEVELOP AND SUBMIT QUARTERLY PROGRESS REPORTS
3b	PREPARE DESCRIPTIONS OF DELIVERY STRATEGIES	6c	PREPARE AND SUBMIT FINAL REPORT
3c	DEVELOP ANNOTATED BIBLIOGRAPHY OF MATERIALS		
3d	DEVELOP WORKSHOP TRAINING MODULE		

MILESTONE INVENTORY

A	CONDUCT PLANNING COMMITTEE MEETING
B	COMPLETE SYNTHESIS OF RESEARCH STUDIES
C	COMPLETE DESCRIPTIONS OF DELIVERY STRATEGIES
D	COMPLETE ANNOTATED BIBLIOGRAPHY OF INSTRUCTIONAL MATERIALS
E	COMPLETE WORKSHOP TRAINING MODULE
F	CONDUCT NATIONAL WORKSHOP
G	COMPLETE EVALUATION OF IMPLEMENTATION ACTIVITIES
H	COMPLETE FINAL REPORT OF PROJECT

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65A

To help you understand the nature and format of some of the various forms that have been used, examples of selected state forms are presented on the following pages. The forms are used by the following states.

- Forms A-1 to A-4 - Kentucky Local Plan Forms
- Forms B-1 to B-4 - West Virginia Local Plan Forms

Begin Actual Implementation

Once the good news has been received that all your programs and support services will be funded (that doesn't always really happen), you are ready to begin the well planned implementation process. Depending on the particular situation, certain actions will probably need to be taken at this point.

For new programs and new or additional support services approved, new personnel will probably need to be employed. In some cases, reassignments of current staff will be called for as some programs are expanded and others reduced or eliminated.

Purchases of equipment and supplies that were dependent upon state and federal funding approval should now be ordered so to ensure their arrival in time for the beginning of classes.

The monitoring process must begin to see that funds are spent appropriately, personnel are assigned to all important activities and tasks, minimum standards are met, and plans are implemented as prepared. Challenges lie ahead, but so do new opportunities to see that more of your students vocational needs are more efficiently and effectively met then ever before.

Obtain copies of the instructions and application forms that must be completed annually by local vocational education agencies applying for vocational funds in your state. Review these forms to determine the exact type of data required by your state department. Your resource person may be able to supply these forms to you and answer any questions you have about them.

You may wish to meet with 1-5 peers who are also taking this module to discuss and compare your understanding of the planning processes involved.

Form A-1

LOCAL PLAN FOR VOCATIONAL EDUCATION

for

Fiscal Year _____

_____

Local Education Agency

STATEMENT OF ASSURANCES

The applicant hereby assures the State Board of Education of the following:

1. The local plan for vocational education has been developed in consultation with representatives of the educational and training resources available to the area to be served.

2. Federal funds made available will be used so as to supplement and to the extent practical, increase the amount of local funds that would in the absence of Federal funds be made available, and in no case supplant such local funds.

3. Federal funds received will be used for programs of vocational education (except consumer and homemaking education) which can be demonstrated to (a) prepare students for employment or (b) be necessary to prepare individuals for a successful completion of the vocational program or (c) be of significant assistance to individuals enrolled in making an informed and meaningful occupational choice.

4. Adequate facilities and equipment are, or will be, available to conduct the programs projected.

5. The applicant will make an annual evaluation report and such other reports as may be reasonably required by the State Board.

6. Employment and enrollment in the programs, services, and activities, contained in this plan shall not be restricted because of race, sex, creed, or national origin.

7. Any Federal funds received under Title VII of the Elementary and Secondary Education Act of 1965 (Bilingual Education) will be so used that expenditures for program purposes will supplement those from PL 90-576 funds and will not amount to duplication of effort.

CERTIFICATION

I do hereby certify that the above assurances will be complied with and programs, services, and activities approved will be conducted in accordance with the Acts, Regulations, and the State Plan for Vocational Education.

I further agree that funds will be used as stipulated in the application.

I further agree that our local fiscal effort for the year covered by this plan will be maintained at a level at least equal to the preceding fiscal year.

I do hereby certify that to the best of my knowledge all information contained in this application is true and correct.

_____	_____	_____
Local Educational Agency	Chief School Administrator	Date

Reviewed by Institutional Advisory or Steering Committee:

_____	_____	_____
Signature	Title	Date

Form A-2

Check Program Area

Ag. _____
B&O _____
D.E. _____
H.E. _____
H.O. _____
I.E. _____
P.S. _____
Other _____

PROGRAM PLAN FOR FISCAL YEAR_____

Local Education Agency_____

School_____ Region_____

I. Based on evaluation of current program, what program needs were identified?

(a) What changes are planned for next year?

(b) Within next 5 years?

II. a. What student organization(s) relating to this program will be in operation next year?_____

_____

b. If none, please explain.

III. Facilities, Equipment, and Supplies

a. Facilities

	Facilities	No.	Size	No. of Work Stations per Classroom or Lab
a.	Classrooms	_____	_____	_____
b.	Lab or shops	_____	_____	_____
c.	Storage Area	_____	_____	
d.	Office	_____	_____	
e.	Other	_____	_____	

b. Equipment – What equipment and instructional materials are needed to make the program more effective and why?

c. Supplies

a. What total amount is provided for consumable supplies? _____

b. List sources and amount:

1. _____ _____
2. _____ _____
3. _____ _____

Form A-2 (cont.)

IV. a. Is there an active craft or advisory committee for this program? _____

b. If not, why?

c. Briefly explain how this committee is currently involved in program planning, development, and evaluation.

V. Are you applying for any of the following funds?

Handicapped _____ Co-op – Part G _____

Disadvantaged _____ Other (Explain) _____

VI. Estimate the number of students to receive occupational experience beyond classroom instruction in one or more of the following:

a. Co-op _____
b. Farming Programs _____
c. Clinical _____
d. Internship _____
e. Model Office _____
f. Simulation _____
g. Other (explain) _____

VII. Describe the plan for program evaluation utilizing advisory committee, administrators, follow-up and placement data, etc.

VIII. List curricular offerings planned for secondary, postsecondary, and adult and estimated enrollment by level for next year.

Program or Course Title	*Per Day	Length of Program (Months or Sem.)	No. of Sections	No. of Teachers	Planned Enrollment							
					Secondary				Post-Sec.	Adult		
					9	10	11	12		Prep.	Supp.	Appr.

*Indicate number of hours class meets per day.

Submitted by _____ _____

Department Chairman or Teacher Principal, Coordinator, or Director

Form A-3

COOPERATIVE VOCATIONAL EDUCATION PROGRAM PLAN
FOR FY_____
PART G

Local Education Agency _____ Region _____

School _____

School or Agency Address _____
CITY STATE ZIP CODE

Contact Person _____ Phone _____

Cooperative Teacher-Coordinator _____

Teacher-Coordinator Certified to Teach _____ Years Teaching Experience _____
SUBJECT AREA

Indicate Project Status: ☐NEW ☐CONTINUATION _____
PROJECT NUMBER

What date is project expected to start? _____ Ending Date _____

Check (✓) the appropriate level(s) and program area(s): SECONDARY POSTSECONDARY

☐AG ☐B&O ☐DE ☐H. EC. (Gainful) ☐HO ☐PUBLIC SER. ☐TECH.

☐IND. ED. ☐SPEC. VOC. PROGRAM

Indicate course(s) in vocational program area _____

1. Briefly state the nature and purpose for which this program is designed.

   What impact will this program have on the needs of disadvantaged youth?

   What impact will this program have on reducing youth unemployment?

BUREAU USE ONLY

☐APPROVED ☐DISAPPROVED ☐DEFERRED

2. STATEMENT OF PROGRAM OBJECTIVES

The objectives should be stated in behavioral terms, and should identify the outcomes expected of this program. (Use additional pages as needed)

3. EVALUATION

Describe the specific plan for evaluating each objective of the program.

4. PROGRAM DESIGN

A. Describe the major elements of the operational plan including general design, methods of instruction, and teaching techniques. How will employers be involved? How will subject area teachers participate in planning? What other personnel will be involved in program planning?

B. Plan of Operation:

(1) Alternate Days_____ Half Days_____ Alternate Weeks_____

Other (Explain)_____

(2) Average hours per week trainee is in school-related studies_____

(3) Is a separate related co-op class provided? ☐YES ☐NO

(4) Average hours per week trainee is on the job_____

(5) Average hours per week the trainee will be in vocational related class under the supervision of the teacher-coordinator_____

(6) Indicate units of credit given for related class_____

Units of credit for supervised on-the-job training_____

5. Has an advisory committee been appointed for this program? ☐YES ☐NO

MEMBERS OF COMMITTEE	REPRESENTING

6. Is there sufficient support from employers to operate a cooperative vocational education program in this occupational field? YES_____ NO_____

A. Has a community survey been conducted? YES_____ NO_____ DATE_____

B. Have procedures been established for cooperation with employers to identify training stations in this occupational area? YES_____ NO_____

C. Has a check list been prepared to evaluate the adequacy of suggested training stations? YES_____ NO_____

D. Has the local employment agency cooperated in the survey? YES_____ NO_____

7. How will students be selected for participation in the cooperative method of instruction? Who will select them?

8. Have accounting procedures been set up to assure the identity of funds allocated for cooperative vocational education? YES_____ NO_____

9. Include a copy of the proposed training agreement which includes the training plan to be used with this program.

10. CHARACTERISTICS AND NUMBERS OF PERSONS TO BE SERVED
(INDICATE NUMBER OF STUDENTS EXPECTED IN EACH CATEGORY)

OCCUPATIONAL AREA	PROGRAM LEVEL						SEX		SCHOOL		TOTAL
	SECONDARY			POSTSECONDARY							
	REG.	DIS.	HANDI.	REG.	DIS.	HANDI.	M	F	PUBLIC	PRIVATE*	
AGRICULTURE											
BUSINESS AND OFFICE											
MARKETING AND DISTRIBUTIVE											
HEALTH OCCUPATIONS											
HOME ECONOMICS (GAINFUL)											
INDUSTRIAL EDUCATION											
PUBLIC SERVICE											
SPECIAL VOCATIONAL EDUCATION											

*THE LOCAL EDUCATIONAL AGENCY AGREES TO MAINTAIN ADMINISTRATIVE CONTROL AND DIRECTION OVER PROGRAMS AND SERVICES PROVIDED IN PRIVATE NON-PROFIT SCHOOLS. YES_____ NO_____

Form A-4

BUDGET REQUEST
Fiscal Year 19____

DISTRICT CODE _____

Kentucky Department of Education
Bureau of Vocational Education
Frankfort, Kentucky

Local Education Agency _____

School _____

Region _____

Submit one copy for each Vocational Program Area in each school.

CHECK PROGRAM AREA		CHECK SOURCE OF FUNDS	
PROGRAM AREA		PART B – PROGRAMS	PART F – CONSUMER & HOMEMAKING
☐ Agribusiness	☐ Practical Arts	☐ Regular	
☐ Business & Office	☐ Public Service	☐ Disadvantaged	☐ Home Ec. (Homemaking)
☐ Marketing & D.E.	☐ Industrial Educ.	☐ Handicapped	PART G – COOPERATIVE
☐ Health & Personal Services	☐ Special Programs	PART A – DISADVANTAGED	
☐ Home Ec.		☐ Disadvantaged	☐ Cooperative Voc. Prog.

SUMMARY OF FUNDS REQUESTED (Use Budget Backups as needed)

OBJECT CODE & ITEM	TOTAL COST	REIMBURSEMENT REQUESTED			REIMBURSEMENT APPROVED			
		Secondary	Post-secondary	Adult	Secondary	Post-secondary	Adult	Totals
10-Supportive Personnel								
11-Teachers								
30-Misc. Operating Costs								
34-Travel								
37-Instructional Supplies								
39-Minor Equipment (Under $300)								
60-Major Equipment (Over $300)								
TOTALS								
			PROJECT NUMBERS					

REQUESTED BY:

_____
Department Chairman or Teacher

_____
Principal, Coordinator, or Director

_____
Chief School Administrator

_____
Date

RECOMMENDED: (Bureau Use)

_____
Director

. . . . . .

APPROVED:

_____
Asst. Superintendent for Voc. Education

_____
Date

Form A-4 (cont.)

Local Education Agency _____ Region _____

School _____ Fiscal Year _____

SALARIES

(10 SUPPORTIVE PERSONNEL)

PERSONNEL SALARIES – (Not foundation units) including adult

NAME: Supportive Personnel	POSITION TITLE	% OF TIME*	PROGRAM LEVEL			REIMBURSEMENT REQUESTED	REIMBURSEMENT APPROVED
			Sec.	P. Sec.	Adult		
		TOTALS					

(11 TEACHERS)

NAME: Teacher's							

*Community Colleges & Special Programs only TOTALS _____

TRAVEL

(34 TRAVEL)

NAME OF TEACHER	STUDENT SUPERVISION	REGIONAL & STATE MEETINGS	OTHER MEETINGS	REIMBURSEMENT REQUESTED	REIMBURSEMENT APPROVED
		TOTALS			

Local Education Agency

Region

School

Fiscal Year

OPERATING COSTS

(37 INSTRUCTIONAL SUPPLIES (including adult))

QUANTITY	ITEM	DESCRIPTION	PROGRAM LEVEL (Check) S.	P.S.	Adult	TOTAL COST	REIMBURSEMENT APPROVED

Form A-4 (cont.)

Budget Backup No.

Local Education Agency

Region

School

Fiscal Year

EQUIPMENT

(39 MINOR EQUIPMENT)

List in priority order items costing $50 or more but less than $300.

QUANTITY	ITEM	DESCRIPTION	PROGRAM LEVEL (Check) S.	P.S.	Adult	UNIT COST	TOTAL COST	* ACTION 1	2	3	REIMBURSEMENT APPROVED

TOTALS

(60 MAJOR EQUIPMENT)

List in priority order items costing $300 or more.

QUANTITY	ITEM	DESCRIPTION	PROGRAM LEVEL (Check) S.	P.S.	Adult	UNIT COST	TOTAL COST	* ACTION 1	2	3	REIMBURSEMENT APPROVED

TOTALS

*Each item will be (1) Approved, (2) Deferred, or (3) Disapproved. Those items deferred may be purchased when additional funds become available.

Form B-1

July 1 _____ June 30 _____

Local Educational Agency
or Multi-County Center _____

APPLICATION FOR APPROVAL OF A VOCATIONAL EDUCATION CURRICULUM

TYPE PROGRAM ___ Regular Secondary, Cont. ___ Postsecondary, Cont. ___ Consumer & Homemaking, Cont.
___ Regular Secondary, New ___ Postsecondary, New ___ Consumer & Homemaking, New

Facility Code (1)	OE Code (2)	Name of Instructor (3)	Percent Time this Curric. (4)	Pro-rated Salary (5)	Fixed Costs (6)	Instructional Supplies (7)	Travel (8)	Total of Columns 5 - 8 (inclusive) (9)	Local Funds Available (10)	Amount of Foundation State Aid (11)	Vocational Aid Requested (12)	Equipment (LEA-9) (13)	Local Funds Available for Equip. (14)	State Use Only (15)
				$	$	$	$	$	$	$	$	$	$	
			Total	$	$	$	$	$	$	$	$	$	$	

70

78

79

_____ State Office Use Only

_____ State Office Use Only

_____
County Superintendent(s)

_____ _____
Assistant State Superintendent Date

(Submit one copy of this form)

Form B-2

Local Educational Agency or Multi-County Center _____

APPLICATION FOR APPROVAL OF A VOCATIONAL EDUCATION CURRICULUM
--SPECIAL PROJECT--

July 1, 19__ June 30, 19__

Type Program: ___ Disadvantaged, Cont. ___ Handicapped, Cont. ___ Cooperative(G), Cont. ___ Exemplary, Cont.
___ Disadvantaged, New ___ Handicapped, New ___ Cooperative(G), New ___ Exemplary, New

Program Level: ___ Secondary ___ Postsecondary ___ Adult ___ Other(specify)

Facility Code_____ Project Number _____ Project Title _____ Anticipated Enrollment _____

EXPENDITURE ITEM	OE CODE	Project Funds	Other Vocational Funds	Local Funds	Total	State Use Only
A. INSTRUCTIONAL SERVICES						
1. Full-Time Instructors (Names)						
2. Part-Time Instructors (Names) % Time:						
3. Instructor Aides (Names)						
4. Equipment (a) Rental (Itemize on the back of this form)						
(b) Maintenance						
(c) Purchase (Itemize on the back of this form)						
5. Instructional Materials and Supplies						
6. Travel						
7. Fixed Charges (a) Teacher Retirement						
(b) Social Security						
(c) Workman's Compensation (Rate: /$100)						
(d) Public Employees' Insurance						
8. Other (specify)						
B. ANCILLARY SERVICES						
1. Supervision (a)						
(b)						
2. Travel						
3. Fixed Charges (a) Teacher Retirement						
(b) Social Security						
(c) Workman's Compensation (Rate: /$100)						
(d) Public Employees' Insurance						
4. Reports and Printing						
SUB TOTAL						
C. INDIRECT COSTS (Rate: %)			x x x x	x x x x		
TOTAL						

_____ _____
_____ _____
_____ _____
County Superintendent(s) Date

Amount Approved $ _____
Budget Code _____
_____ _____
Assistant State Superintendent Date

State Use Only		
	Initial	Date
Service Area		
Finance Officer		
Coordinator		
Grant Number		

Form B-3

Local Educational Agency or Multi-Count. Center _____

APPLICATION FOR ANCILLARY SERVICES

July 1____ - June 30____

Job Title	Name	% Time Voc. Educ.	Salary	Fixed Costs	Supplies	Travel	Total Col. 4-7	Local Funds	State Aid	Requested Voc. Aid	State Use Only
(1)	(2)	(3)	(4)	(5)	6)	(7	(8)	(9)	(10)	(11)	(12)
Professional:											
	Sub Total										
Clerical:											
	Sub Total										
	TOTAL										

OPERATION AND MAINTENANCE - AREA SCHOOLS

	Total	Local	Other	Voc. Aid	State Use
A. OPERATION OF PLANT					
810 Salaries: (a) Custodial $_____; (b) Care of Grounds $_____; (d) Other $_____		x x x x	x x x x	x x x x	
620 Contracted Services $_____		x x x x	x x x x	x x x x	
630 Heat for Buildings $_____		x x x x	x x x x	x x x x	
640 Utilities: (a) Water/Sewage $_____; (b) Elec. $_____; (d) Telephone $_____; (e) Other $_____		x x x x	x x x x	x x x x	
650 Supplies: (a) Custodial $_____; (b) Vehicles $_____; (c) Grounds Care $_____; (d) Other $_____		x x x x	x x x x	x x x x	
660 Other Costs for Operation of Plant (Specify) $_____		x x x x	x x x x	x x x x	
Sub Total					
B. MAINTENANCE OF PLANT					
710 Salaries: (a) Grounds $_____; (b) Buildings $_____; (c) Equip. Repair $_____		x x x x	x x x x	x x x x	
720 Contracted Services: (a) Grounds Upkeep $_____; (b) Building Repair $_____; (c)Equip. Repair $_____		x x x x	x x x x	x x x x	
730 Replacement of Equipment: (b) Replacement of Non-Instructional Equipment $_____		x x x x	x x x x	x x x x	
740 Other: (a) Grounds $_____; (b) Buildings $_____; (c) Equip. Repair $_____; (e) Other $_____		x x x x	x x x x	x x x x	
Sub Total					
C. FIXED CHARGES					
810 Employee Benefits: (a) Retirement $_____; (b) Social Security $_____		x x x x	x x x x	x x x x	
820 Insurance (A01)Property $_____; (A02)Public Employees' Insurance $_____; (B01)Work. Comp. $_____		x x x x	x x x x	x x x x	
830 Rental of Land and Buildings: (a) Instructional Purposes $_____		x x x x	x x x x	x x x x	
Sub Total					
TOTAL FACILITY EXPENSES					

_____ County Superintendent

_____ County Superintendent

_____ County Superintendent

_____ Assistant State Superintendent

_____ Date

(Submit One Copy of this Form)

Form B-4

Local Educational Agency _____

ESTIMATE OF FUNDS NEEDED FOR VOCATIONAL EDUCATION

	SOURCE OF FUNDS - 1975-76					SOURCE OF FUNDS - 1978-79				
	Tuition	Other Local	State Aid	Vocational Aid	Total Col's 1-4	Tuition	Other Local	State Aid	Vocational Aid	Total Col's 1-4
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
SECONDARY, PART B										
Instructor Salaries										
Supplies										
Travel										
Equipment										
Total Secondary										
POSTSECONDARY, PART B										
Instructor Salaries										
Supplies										
Travel										
Equipment										
Total Postsecondary										
ADULT, PART B										
DISADVANTAGED										
HANDICAPPED										
ANCILLARY										
FACILITY OPERATION										
CONSTRUCTION										
SUB TOTAL										
CONS. & MNKG., PART F										
Secondary										
Adult										
Total Part F										
COOPERATIVE, PART G										
WORK STUDY, PART H										
SUB TOTAL, PARTS F,G,H										
GRAND TOTAL										

The following items check your comprehension of the material in the information sheet, "Developing Implementation Plans," pp. 49-73. Each of the five items requires a short essay-type response. Please explain fully, but briefly, and make sure you respond to all parts of each item.

SELF-CHECK

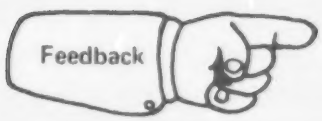
1. What type of consolidation and refinement activities should be carried out during the development of actual implementation plans?

2. What is a "work breakdown structure" and what is its function in the implementation process?

3. What are the major items to be considered when costing out the total resource requirements needed to implement the selected alternatives?

4. Good management plans always include two features. What are they and why are they important?

5. Identify three tasks that are normally completed soon after notification of application approval is received.



Compare your completed responses to the "Self-Check" with the "Model Answers" given below. Your responses need not duplicate the model responses; however, you should have covered the same major points.

MODEL ANSWERS

1. Consolidation occurs during the development of implementation plans in at least two ways. All of the activities necessary to carry out the alternatives selected need to be assembled into a master schedule and the budgets for implementing each of the selected alternatives need to be compiled into an overall budget. Refinement occurs during this phase as the estimated costs for each alternative are developed into specific budgets, and the projected steps and tasks needed to carry out the program or service are spelled out in detail.

2. A work breakdown structure is exactly what the name itself implies. Major events or implementation activities are analyzed or broken down into the sub-activities (tasks and steps) necessary to implement the vocational program or support service in question. It functions as a tool in the planning process to help the administrator obtain a master schedule of sequenced activities that will help him or her manage and supervise the implementation process.

3. Major cost items are: (a) personnel, (b) equipment, (c) supplies and materials, (d) facilities, (e) maintenance costs, and (f) travel expenses.

4. Two features found in all management plans include a scheduling of major activities or events and the assignment of personnel responsible for the various activities and tasks to be carried out. The scheduling of activities is important to ensure that activities are carried out when planned and in the right sequence. The assignment of personnel to various tasks represents a necessary procedure for delegating responsibility to different individuals according to their particular expertise. Such assignments and schedules also provide a measure of accountability for ensuring the jobs are done on time.

5. Soon after the state department approves funding for all or part of the programs and services requested, the following activities should occur.

   a. hire any new staff needed
   b. purchase equipment and supplies needed
   c. begin to monitor the implementation process

LEVEL OF PERFORMANCE: Your completed "Self-Check" should have covered the same major points as the model responses. If you missed some points, or have questions about any additional points you made, review the material in the information sheet, "Developing Implementation Plans," pp. 49-73, or check with your resource person if necessary.

Learning Experience IV

OVERVIEW

After completing the required reading, demonstrate knowledge of accepted procedures and techniques for evaluating vocational programs and support services.

You will be reading the information sheet, "Evaluating Vocational Programs and Support Services," pp. 81-87.

You may wish to read Norton and McCaslin, "Evaluation of Special Group Programs" (Chapter 19), in Vocational Education for Special Groups.

You may wish to obtain and review sample evaluation forms and/or actual reports of local program evaluations.

You will be demonstrating knowledge of the procedures and techniques for evaluating vocational programs and support services by completing the "Self-Check," pp. 89-90.

You will be evaluating your competency by comparing your completed "Self-Check" with the "Model Answers," pp. 91-92.

For information about the purpose and scope of program evaluation efforts, the major types of evaluation, the basis for program evaluation, and the approaches and techniques commonly used, read the following information sheet.

EVALUATING VOCATIONAL PROGRAMS AND SUPPORT SERVICES

The final step in the Vocational Education Planning Model (see Figure 1) is the evaluation of programs and support services. While to many the development of implementation plans and the actual initiation of the plans may seem like the final step in a long and complex planning process, another important activity must be planned and also initiated at this point. It is the evaluation of the planning process itself, and particularly, the evaluation of the programs and support services implemented as a result of that planning, that permits the collection of invaluable data for assessing the effectiveness of the programs and services as well as the planning processes that led to their selection.

The major factors to consider in Step 9, "Evaluate Programs and Support Services" are as follows:

- purpose and scope of the evaluation effort
- major types of evaluation
- basis for program evaluation
- approaches and techniques to be used

Purpose and Scope of the Evaluation Effort

The general purpose of this step in the planning process is to examine the success of the implemented programs and services in achieving the established program goals and objectives. Feedback from this stage should provide useful data for modifying all steps of the planning process in order to approve the attainment of the goals and objectives sought. The reader should note that arrows in the planning process diagram presented in Figure 1 indicate that feedback from the evaluation effort should be fed into each step of the planning cycle.

Some planners argue, and rightly so for established programs and services, that evaluation should be the first step in the process rather than the last. The argument here is that we must describe "what is or has been" before we can make decisions about "what needs to be done" in light of our goals.

Evaluation may be defined as "the process of gathering and providing useful information for decision-making." The goal of evaluation is to improve the program or activity being examined.

> Improvement implies change. There is some risk involved, of course, with any change because only positive change is useful and desirable. To insure that changes made are positive ones, which will lead to increased program effectiveness and/or efficiency, carefully designed and conducted evaluations are essential as a source of reliable information. Given factual information about a program, the decision maker can identify alternative actions and choose the action or combination of actions most likely to result in improved practice.[11]

The word "evaluation" generally creates a number of images, mostly negative in the minds of any audience, hence the purpose of any program evaluation effort needs to be made clear. The evaluation effort to be successful must be viewed and used as a process for program improvement and progressive change rather than for personal or program condemnation.

The scope of the evaluation effort in the planning process should be basically two-fold. First, the programs and services implemented should be assessed for their overall effectiveness and efficiency in meeting the established program goals and objectives for vocational education. Second, the planning process itself should undergo some examination to see if the best possible job was done, how things could have been done quicker and perhaps more effectively. Since the planning cycle or at least parts thereof, must be repeated annually, improvement of the planning process itself is very important.

Types of Evaluation

Two major types of evaluation that are appropriate for use in all types of program evaluation are described by Norton and McCaslin in the context of evaluation for special groups in vocational education.

> Formative evaluation is conducted to obtain and provide information necessary for improving programs, processes, or products (curricula, guides, manuals, etc.) while they are being developed and/or implemented. This type of evaluation should be ongoing during the developmental

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[11] Robert E. Norton and Norval McCaslin, "Evaluation of Special Group Programs" in Vocational Education for Special Groups, (Edited by James E. Wall, Washington, DC: American Vocational Association, 1976), p. 328.

and implementation stages of any special group program. Formative evaluation helps the program manager and staff by providing a continuous "monitoring system" that produces information on which to make program modifications to better meet the needs of the clientele group. Such feedback should be sought regularly by program staff on all program planning, development, and implementation activities. Once obtained, the information should be used to modify activities to bring about positive change.

Among the many types of activities that formative evaluation can address are the following: (a) clarification of goals and objectives, (b) design of needs assessment instruments and procedures, (c) monitoring of program development processes, (d) development of instrumentation to assess train ng or instructional program effectiveness, and (e) pretesting of curricular materials. It is highly unlikely that rigorous research designs or statistical analyses will be conducted because formative evaluation must provide rapid feedback of information to the special group program so changes might be incorporated and deficiencies corrected as soon as possible.

Summative evaluation is concerned with evaluating the overall program after it is operational. The focus here is on assessing the results or outcomes being achieved by the program. A major question to be answered is, "What impact is the program having on its client group?" Whereas formative evaluation looks at the parts of a program as they are being developed, summative evaluation looks at the total entity once it is operational and provides information about the program's overall effectiveness and efficiency. Summative evaluation assesses the program in relation to its established objectives and available resources, and reports what was accomplished for the time, money, and effort expended. This type of report is sent to those who set policy and make decisions about whether to continue funding a program, and to educational administrators for use in deciding whether to adapt the program in their schools.

Among summative evaluation concerns are: (a) impact of program on students; (b) beneficial and/ or harmful side effects; (c) program features that influenced success or failure; (d) degree to which program objectives were attained; (e) factors, if any, that served to limit program; (f) cost-effectiveness of program; and, (g) deciding on recommendations for program continuation, modification, or cessation.[12]

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[12] Ibid., pp. 332-333.

Basis for Program Evaluation

The basis for all vocational education program and supportive service evaluations should be the program objectives established for the program. In Step 5 of the planning process it was mentioned that when program objectives are developed they should be stated in measurable performance-oriented terms. If the objectives have not been so stated, then one of the first tasks in program evaluation is to revise the objectives to make clearer and quantifiable their intent. To be useful in program evaluation, the objective must indicate what (performance) is to be done, when or to what degree the activity is to be done to be considered successful (criteria), and the conditions under which the activity is to be conducted.[13]

An example of a measurable program objective is presented as Sample 11.

SAMPLE 11

Objective: To develop in the students a favorable attitude toward continuing their education after graduation. *

Evidence of Obtaining Objective: If 80 percent of the graduates continue their education by enrolling in one or more of the following educational programs within five years after graduation, the program shall be considered *successful* in developing favorable attitudes towards continued education

1. Post-secondary technical institute
2. Community or junior college
3. College or university
4. Apprentice program
5. Industrial sponsored training program
6. Private vocational-technical school
7. Correspondence program leading to a certificate or degree
8. Job upgrading program
9. Military job training

If 79 percent or less, but more than 49 percent of the students enroll in one or more of the above programs, the program shall be considered *moderately successful* in meeting the above objective.

If 49 percent or less enroll in one or more of the above programs the program shall be considered *unsuccessful* in meeting the above objective.

* This is one of a tentative set of program objectives for which specific terminal behavior characteristics and discriminatory levels have been identified by Dr. Jim Hannemann, Vocational Consultant at Oakland Schools, Pontiac, Michigan.

[13] For more information on developing program goals and objectives the reader may wish to read Module A-6, Develop Program Goals and Objectives, from the Professional Teacher Education Module Series, (Athens, GA: The American Association for Vocational Instructional Materials, 1977).

Approaches and Techniques to be Used

When developing the evaluation plan, one of the most important tasks the planner is faced with is the selection of the best approach and the best techniques to use in the evaluation process. A variety of commonly used approaches and evaluation techniques are briefly described here with references given for the administrator who wants to pursue this topic further.

Three approaches to local program evaluation are as follows.

Locally directed evaluations.--These evaluations are completely planned and conducted by members of the school administration and professional staff. Supporters of this approach to evaluation of programs strongly argue that evaluation ought to be done by those who are responsible for improvement of the programs and by those who are affected by them. Opponents of this approach argue that those involved are too close to the situation to be objective and that they usually do not have the expertise needed. These criticisms can be largely overcome when appropriate and representative persons from the staff and the community are involved, and consultants are used to provide the expertise needed.

State directed evaluations.--These evaluations are usually primarily process-oriented in that they emphasize the ways and means of the program or service being evaluated. Attention is usually focused on such things as teacher qualifications, classroom and laboratory facilities, equipment and supplies, instructional strategies, and the like. Most state departments plan and conduct such vocational program reviews every three to five years. Printed criteria and instrumentation used in these evaluations are available from the vocational divisions of most state departments. Some states have developed comprehensive and systematic approaches to evaluation such as Ohio's PRIDE (Program Review for Improvement, Development, and Expansion) system.

Visiting team evaluations.--Some school districts employ an independent or third party team of outside consultants to visit the vocational program for several days to evaluate it. These team visits are usually similar to the type of evaluations conducted by regional accrediting associations once approximately every ten years. This type of evaluation also usually focuses heavily on the processes used as opposed to the outcomes or products of the program.

A number of evaluation techniques have been developed and proven effective for evaluating both program processes and program outcomes. Most of these techniques can be used effectively in both formative and summative evaluations. When considering the problem of what techniques to use, the question to be answered is "What technique or techniques can be used to most efficiently gather the needed data? The challenge present at

this decision point lies in selecting the best combination of techniques for gathering relevant data about each program objective.

> The following guidelines should be considered when selecting techniques and/or data collection instruments: (a) the types of evidence needed to indicate the degree of success or failure, the focus must be on essential rather than nice-to-know information; (b) the possibility of staff and student sensitivity to evaluation; (c) the time required to complete the instrument(s); (d) the questions should reflect specific program objectives and/or process variables; (e) the instruments should have clear directions and be easy to administer; (f) the assessment items should be objective; and, (g) the confidentiality of individual responses should be assured.[14]

The following is a list of evaluation techniques representing the most commonly recommended data-collection procedures for vocational education evaluations. All of the techniques listed have merit when appropriately used. For details about any of these techniques, you should refer to one or more of the references which follow the listing.

- Questionnaires - former student follow-up and employer surveys
- Personal interviews - commonly used to obtain information from dropouts
- Pretests-Posttests
- Observation
- Advisory committees
- Advisory councils
- Cost-benefit studies
- Recommended references include:

Byram, Harold M. and Marvin Robertson. Locally Directed Evaluation of Local Vocational Education Programs. (Danville, IL: The Interstate Printers and Publishers, Inc., 1971).

Stufflebeam, Daniel L., et al. Educational Evaluation and Decision Making. (Itasca, IL: F. E. Peacock Publishers, Inc., 1971).

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[14]Robert E. Norton and Norval McCaslin, op. cit., p. 335.

Wentling, Tim L., and Lawson, Tom E. Evaluating Occupational Education and Training Programs. (Boston, MA: Allyn and Bacon, Inc., 1975).

Module A-10, Conduct a Student Follow-up Study from the Professional Teacher Education Module Series. (Athens, GA: American Association for Vocational Instructional Materials, 1977).

Module A-11, Evaluating Your Vocational Program from the Professional Teacher Education Module Series. (Athens, GA: American Association for Vocational Instructional Materials, 1977).

You may wish to read Norton and McCaslin, "Evaluation of Special Group Programs" (Chapter 19), in Vocational Education for Special Groups.

You may wish to obtain and review sample evaluation forms and/or actual reports of local program evaluations.

The following items check your comprehension of the material in the information sheet, "Evaluate Vocational Programs and Support Services," pp. 81-87. Each of the five items requires a short essay-type response. Please explain fully, but briefly, and make sure you respond to all parts of each item.

SELF-CHECK

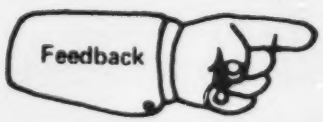
1. Why is the evaluation of vocational programs and support services an important step in the vocational planning process?

2. What should be the major purpose of any program evaluation effort?

3. Identify and briefly describe the two major types of program evaluations that should be considered by vocational educators.

4. What approach to local program evaluation provides for the most input and involvement by local personnel?

5. What technique or techniques are most useful in conducting program evaluations?



Compare your completed responses to the "Self-Check" with the "Model Answers" given below. Your responses need not duplicate the model responses; however, you should have covered the same major points.

MODEL ANSWERS

1. The evaluation of vocational programs and support services is an essential part of the vocational planning cycle if comprehensive and data-based planning is to be carried out. Evaluation data becomes one of the important inputs to each of the other steps of the planning process. Effectiveness of data obtained from the evaluation of programs and services provides important information about what changes may be needed in order to do a better job of achieving established goals and objectives.

2. The major purpose of any program evaluation effort should be improvement of the programs and/or services being evaluated. Given valid information about a program's successes and/or failures, the planner and/or local administrator can take steps to incorporate changes needed to improve the program or service.

3. The two major types of program evaluation are formative evaluation and summative evaluation. Formative evaluation is concerned with obtaining information about program processes and products while they are in the process of being developed and implemented. It provides information "along the way" for the improvement of programs and services as they are being developed and operationalized. Summative evaluation is concerned with the overall effectiveness of a program after it is operational. The focus in this instance is on assessing the results or outcomes of the program in relation to its original goals and objectives.

4. The locally directed evaluation approach provides for the most involvement of local persons. In this type of evaluation, a basic principle is that those persons responsible for and affected by the programs are to be maximally involved in the evaluation process. Such evaluations use staff committees and advisory committees in the evaluation process. The involvement of those persons is likely to result in stronger support for the implementation of any recommended changes.

5. There is no one best technique for conducting program evaluations. In most cases a combination of techniques will be needed to collect different types of data from different clientele groups. The question that really must be answered

in terms of the specific situation in question is "what technique or techniques will provide the needed data most efficiently."

LEVEL OF PERFORMANCE: Your completed "Self-Check" should have covered the same major points as the model responses. If you missed some points, or have questions about any additional points you made, review the material in the information sheet, "Evaluating Vocational Programs and Support Services," pp. 81-87, or check with your resource person if necessary.

Learning Experience V

FINAL EXPERIENCE

While working in an actual administrative situation, complete the development of local plans for vocational education.

NOTE: To complete this learning experience you must have successfully determined program and support service needs. One option to gain this competency was to complete Learning Experience V of the module Develop Local Plans for Vocational Education: Part I.

Develop and implement the appropriate planning procedures necessary to complete the development of local plans for your vocational education agency. This planning effort will include:

- establishing vocational program goals and objectives
- considering program and support service alternatives
- selecting the best available alternatives
- developing actual implementation plans for the alternatives selected including making application for state and federal funds
- planning for the evaluation of the programs and services to be implemented

NOTE: While you should give overall leadership to the planning process, you should, of course, involve appropriate others from the administration, staff planning committee, and local advisory council in actually completing the local plan development process.

continued

Due to the nature of this experience, you will need to have access to an actual administrative situation over an extended period of time (e.g., 6-12 months).

As you complete each of the above activities, document your actions (in writing, on tape, through a log) for assessment purposes.

Arrange to have your resource person review your completed documentation.

Your total competency will be assessed by your resource person, using the "Administrator Performance Assessment Form," pp. 95-97. Based upon the criteria specified in this assessment instrument and the documentation provided, your resource person will determine whether you are competent in determining vocational program and support service needs.

Name _____

Date _____

Resource Person _____

Rate the administrator's level of performance on each of the following performance components involved in completing the development of local plans for vocational education. Indicate the level of the administrator's accomplishment by placing an X in the appropriate column under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A column.

ADMINISTRATOR PERFORMANCE ASSESSMENT FORM

Develop Local Plans for

Vocational Education: Part II

In establishing vocational program goals and objectives:	LEVEL OF PERFORMANCE					
	N/A	NONE	POOR	FAIR	GOOD	EXCELLENT
1. statements were written which reflected all of the priority program needs.....						
2. statements were written which reflected all of the priority support service needs.....						
3. statements were written at the right levels (overall program and occupational areas).....						
4. relevant sources of information were used as inputs to the writing task.....						
5. appropriate staff members and advisory committee personnel were involved.....						

	N/A	NONE	POOR	FAIR	GOOD	EXCELLENT
6. program objectives were stated in measurable terms.....						
7. both long-range and short-range goals and objectives were developed.....						
<u>In considering program and support service alternatives</u>:						
8. a number of alternatives were generated for each program goal.....						
9. the likely effectiveness of each alternative was assessed.....						
10. the likely impact of each alternative was assessed.....						
11. the cost of each alternative was estimated.....						
12. the compatibility of each proposed alternative with current programs was assessed.....						
13. the political feasibility of each alternative was weighed.....						
<u>In selecting the best alternative for achieving each program goal</u>:						
14. appropriate persons were involved.....						
15. relevant decision-making criteria were predetermined.....						
<u>In the process of developing implementation plans</u>:						
16. a work breakdown structure of major activities and events was prepared.....						
17. detailed resource requirements were determined.....						

	N/A	NONE	POOR	FAIR	GOOD	EXCELLENT
18. a management plan was prepared which:						
a. included beginning and ending dates for each major event or activity.....						
b. included the assignment of personnel responsible for each activity.....						
19. approval of plans was obtained from the local advisory council and the school or college administration.....						
20. an application for federal and state funds was completed and submitted to the state department of education.....						
In planning for the evaluation of vocational programs and supportive services:						
21. alternative strategies and techniques for evaluation were considered.....						
22. a plan for evaluation was developed which included procedures for formative and summative evaluation of:						
a. all of the vocational programs offered.....						
b. all of the supportive services provided.....						

LEVEL OF PERFORMANCE: All items must receive N/A, GOOD, or EXCELLENT responses. If any item received a NONE, POOR, or FAIR response, the administrator and the resource person should meet to determine what additional activities the administrator needs to complete in order to reach competency in the weak area(s).